

Preaward Compliance Review Report for All Applicants and Recipients Requesting EPA Financial Assistance

Note: Read Instructions before completing form.

I. A. Applicant/Recipient (Name, Address, City, State, Zip Code)

Name: Jennifer A. Lentz, Ph.D.
Address: 660 S. Figueroa Street
Suite 1140
City: LOS ANGELES
State: CA: California Zip Code: 90017

B. DUNS No. 0385798480000

II. Is the applicant currently receiving EPA Assistance? ☐ Yes ☒ No

III. List all civil rights lawsuits and administrative complaints pending against the applicant/recipient that allege discrimination based on race, color, national origin, sex, age, or disability. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7.)

No

IV. List all civil rights lawsuits and administrative complaints decided against the applicant/recipient within the last year that allege discrimination based on race, color, national origin, sex, age, or disability and enclose a copy of all decisions. Please describe all corrective actions taken. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7.)

No

V. List all civil rights compliance reviews of the applicant/recipient conducted by any agency within the last two years and enclose a copy of the review and any decisions, orders, or agreements based on the review. Please describe any corrective action taken. (40 C.F.R. § 7.80(c)(3))

N/A

VI. Is the applicant requesting EPA assistance for new construction? If no, proceed to VII; if yes, answer (a) and/or (b) below.

☐ Yes ☒ No

a. If the grant is for new construction, will all new facilities or alterations to existing facilities be designed and constructed to be readily accessible to and usable by persons with disabilities? If yes, proceed to VII; if no, proceed to VI(b).

☐ Yes ☐ No

b. If the grant is for new construction and the new facilities or alterations to existing facilities will not be readily accessible to and usable by persons with disabilities, explain how a regulatory exception (40 C.F.R. 7.70) applies.

VII. Does the applicant/recipient provide initial and continuing notice that it does not discriminate on the basis of race, color, national origin, sex, age, or disability in its program or activities? (40 C.F.R. 5.140 and 7.95)

☒ Yes ☐ No

a. Do the methods of notice accommodate those with impaired vision or hearing?

☒ Yes ☐ No

b. Is the notice posted in a prominent place in the applicant's offices or facilities or, for education programs and activities, in appropriate periodicals and other written communications?

☒ Yes ☐ No

c. Does the notice identify a designated civil rights coordinator?

☒ Yes ☐ No

VIII. Does the applicant/recipient maintain demographic data on the race, color, national origin, sex, age, or handicap of the population it serves? (40 C.F.R. 7.85(a))

☐ Yes ☒ No

IX. Does the applicant/recipient have a policy/procedure for providing access to services for persons with limited English proficiency? (40 C.F.R. Part 7, E.O. 13166)

☒ Yes ☐ No

- X. If the applicant is an education program or activity, or has 15 or more employees, has it designated an employee to coordinate its compliance with 40 C.F.R. Parts 5 and 7? Provide the name, title, position, mailing address, e-mail address, fax number, and telephone number of the designated coordinator.**

N/A

- XI. If the applicant is an education program or activity, or has 15 or more employees, has it adopted grievance procedures that assure the prompt and fair resolution of complaints that allege a violation of 40 C.F.R. Parts 5 and 7? Provide a legal citation or Internet Address for, or a copy of, the procedures.**

For the Applicant/Recipient

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. I assure that I will fully comply with all applicable civil rights statutes and EPA regulations.

A. Signature of Authorized Official

Jennifer A Lentz

B. Title of Authorized Official

Deputy Director of Programs

C. Date

03/25/2022

For the U.S. Environmental Protection Agency

I have reviewed the information provided by the applicant/recipient and hereby certify that the applicant/recipient has submitted all preaward compliance information required by 40 C.F.R. Parts 5 and 7; that based on the information submitted, this application satisfies the preaward provisions of 40 C.F.R. Parts 5 and 7; and that the applicant has given assurance that it will fully comply with all applicable civil rights statutes and EPA regulations.

A. *Signature of Authorized EPA Official

B. Title of Authorized Official

C. Date

*** See Instructions**

Instructions for EPA FORM 4700-4 (Rev. 06/2014)

General. Recipients of Federal financial assistance from the U.S. Environmental Protection Agency must comply with the following statutes and regulations.

Title VI of the Civil Rights Acts of 1964 provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. The Act goes on to explain that the statute shall not be construed to authorize action with respect to any employment practice of any employer, employment agency, or labor organization (except where the primary objective of the Federal financial assistance is to provide employment). Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act provides that no person in the United States shall on the ground of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under the Federal Water Pollution Control Act, as amended. Employment discrimination on the basis of sex is prohibited in all such programs or activities. Section 504 of the Rehabilitation Act of 1973 provides that no otherwise qualified individual with a disability in the United States shall solely by reason of disability be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. Employment discrimination on the basis of disability is prohibited in all such programs or activities. The Age Discrimination Act of 1975 provides that no person on the basis of age shall be excluded from participation under any program or activity receiving Federal financial assistance. Employment discrimination is not covered. Age discrimination in employment is prohibited by the Age Discrimination in Employment Act administered by the Equal Employment Opportunity Commission. Title IX of the Education Amendments of 1972 provides that no person in the United States on the basis of sex shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance. Employment discrimination on the basis of sex is prohibited in all such education programs or activities. Note: an education program or activity is not limited to only those conducted by a formal institution. 40 C.F.R. Part 5 implements Title IX of the Education Amendments of 1972. 40 C.F.R. Part 7 implements Title VI of the Civil Rights Act of 1964, Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act, and Section 504 of The Rehabilitation Act of 1973. The Executive Order 13166 (E.O. 13166) entitled; "Improving Access to Services for Persons with Limited English Proficiency" requires Federal agencies work to ensure that recipients of Federal financial assistance provide meaningful access to their LEP applicants and beneficiaries.

Items "Applicant" means any entity that files an application or unsolicited proposal or otherwise requests EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Recipient" means any entity, other than applicant, which will actually receive EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Civil rights lawsuits and administrative complaints" means any lawsuit or administrative complaint alleging discrimination on the basis of race, color, national origin, sex, age, or disability pending or decided against the applicant and/or entity which actually benefits from the grant, but excluding employment complaints not covered by 40 C.F.R. Parts 5 and 7. For example, if a city is the named applicant but the grant will actually benefit the Department of Sewage, civil rights lawsuits involving both the city and the Department of Sewage should be listed. "Civil rights compliance review" means any review assessing the applicant's and/or recipient's compliance with laws prohibiting discrimination on the basis of race, color, national origin, sex, age, or disability. Submit this form with the original and required copies of applications, requests for extensions, requests for increase of funds, etc. Updates of information are all that are required after the initial application submission. If any item is not relevant to the project for which assistance is requested, write "NA" for "Not Applicable." In the event applicant is uncertain about how to answer any questions, EPA program officials should be contacted for clarification. * Note: Signature appears in the Approval Section of the EPA Comprehensive Administrative Review For Grants/Cooperative Agreements & Continuation/Supplemental Awards form.

Other Attachment File(s)

* Mandatory Other Attachment Filename: 1235-2022.03.25_AirAware_YMCA_Appendices_FINAL.pdf

Add Mandatory Other Attachment

Delete Mandatory Other Attachment

View Mandatory Other Attachment

To add more "Other Attachment" attachments, please use the attachment buttons below.

Add Optional Other Attachment

Delete Optional Other Attachment

View Optional Other Attachment

Project Narrative File(s)

* **Mandatory Project Narrative File Filename:**

To add more Project Narrative File attachments, please use the attachment buttons below.

BUDGET INFORMATION - Non-Construction Programs

OMB Number: 4040-0006
Expiration Date: 02/28/2022

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. AirAware - Empowering YMCA Communities to Use Real-time Data and Awareness to Reduce Pollution Exposure	66.034	\$ 0.00	\$ 0.00	\$ 499,999.75	\$ 0.00	\$ 499,999.75
2.						
3.						
4.						
5. Totals		\$ 0.00	\$ 0.00	\$ 499,999.75	\$ 0.00	\$ 499,999.75

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SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
	AirAware - Empowering YMCA Communities to Use Real-time Data and Awareness to Reduce Pollution Exposure				
a. Personnel	\$ 53,930.88	\$	\$	\$	\$ 53,930.88
b. Fringe Benefits	15,100.65				15,100.65
c. Travel	283.61				283.61
d. Equipment	0.00				0.00
e. Supplies	2,500.00				2,500.00
f. Contractual	292,197.32				292,197.32
g. Construction	0.00				0.00
h. Other	52,654.00				52,654.00
i. Total Direct Charges (sum of 6a-6h)	416,666.46				\$ 416,666.46
j. Indirect Charges	83,333.29				\$ 83,333.29
k. TOTALS (sum of 6i and 6j)	\$ 499,999.75	\$	\$	\$	\$ 499,999.75
7. Program Income	\$	\$	\$	\$	\$

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SECTION C - NON-FEDERAL RESOURCES				
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8. AirAware - Empowering YMCA Communities to Use Real-time Data and Awareness to Reduce Pollution Exposure	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
9.				
10.				
11.				
12. TOTAL (sum of lines 8-11)	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00

SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ 351,384.00	\$ 158,123.00	\$ 87,845.00	\$ 52,708.00	\$ 52,708.00
14. Non-Federal					
15. TOTAL (sum of lines 13 and 14)	\$ 351,384.00	\$ 158,123.00	\$ 87,845.00	\$ 52,708.00	\$ 52,708.00

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT				
(a) Grant Program	FUTURE FUNDING PERIODS (YEARS)			
	(b)First	(c) Second	(d) Third	(e) Fourth
16. AirAware - Empowering YMCA Communities to Use Real-time Data and Awareness to Reduce Pollution Exposure	\$ 351,384.00	\$ 74,308.00	\$ 74,308.00	
17.				
18.				
19.				
20. TOTAL (sum of lines 16 - 19)	\$ 351,384.00	\$ 74,308.00	\$ 74,308.00	

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges: \$416,666.45 (Equipment is included in Contractual)	22. Indirect Charges: calculated as 20% of Direct Charges = \$83,333.29
23. Remarks: Total Project Cost and Total EPA Funds Requested = \$499,999.75 which rounds up to \$500,000	

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Application for Federal Assistance SF-424

* 1. Type of Submission:

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

* 2. Type of Application:

- ☒ New
☐ Continuation
☐ Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received:

03/25/2022

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name:

Coalition for Clean Air

* b. Employer/Taxpayer Identification Number (EIN/TIN):

23-7120567

* c. Organizational DUNS:

0385798480000

d. Address:

* Street1:

660 S. Figueroa Street

Street2:

Suite 1140

* City:

Los Angeles

County/Parish:

Los Angeles

* State:

CA: California

Province:

* Country:

USA: UNITED STATES

* Zip / Postal Code:

90017-3424

e. Organizational Unit:

Department Name:

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

Ms.

* First Name:

Jennifer

Middle Name:

Anne

* Last Name:

Lentz

Suffix:

Ph.D.

Title:

Deputy Director of Programs

Organizational Affiliation:

Coalition for Clean Air

* Telephone Number:

(213) 223-6867

Fax Number:

* Email:

Jenny@ccair.org

Application for Federal Assistance SF-424

* 9. Type of Applicant 1: Select Applicant Type:

M: Nonprofit with 501C3 IRS Status (Other than Institution of Higher Education)

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

* 10. Name of Federal Agency:

Environmental Protection Agency

11. Catalog of Federal Domestic Assistance Number:

66.034

CFDA Title:

Surveys, Studies, Research, Investigations, Demonstrations, and Special Purpose Activities
Relating to the Clean Air Act

* 12. Funding Opportunity Number:

EPA-OAR-OAQPS-22-01

* Title:

Enhanced Air Quality Monitoring for Communities

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

1236-a. SF-424_2_1-v2.1_FINAL_14.pdf

Add Attachment

Delete Attachment

View Attachment

* 15. Descriptive Title of Applicant's Project:

AirAware - Empowering YMCA Communities to Use Real-time Data and Awareness to Reduce Pollution
Exposure

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424**16. Congressional Districts Of:*** a. Applicant * b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

17. Proposed Project:* a. Start Date: * b. End Date: **18. Estimated Funding (\$):**

* a. Federal	<input type="text" value="500,000.00"/>
* b. Applicant	<input type="text" value="0.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="500,000.00"/>

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- ☐ a. This application was made available to the State under the Executive Order 12372 Process for review on
- ☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☒ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**☐ Yes ☒ No

If "Yes", provide explanation and attach

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

Suffix:

* Title: * Telephone Number: Fax Number: * Email: * Signature of Authorized Representative: * Date Signed:



EPA KEY CONTACTS FORM

OMB Number: 2030-0020
Expiration Date: 06/30/2024

Authorized Representative: *Original awards and amendments will be sent to this individual for review and acceptance, unless otherwise indicated.*

Name:	Prefix: Ms.	First Name: Jennifer	Middle Name: Anne
	Last Name: Lentz		Suffix: Ph.D.
Title:	Deputy Director of Programs		
Complete Address:			
Street1:	660 S. Figueroa Street		
Street2:	Suite 1140		
City:	Los Angeles	State:	CA: California
Zip / Postal Code:	90017	Country:	USA: UNITED STATES
Phone Number:	(213) 223-6867	Fax Number:	
E-mail Address:	Jenny@ccair.org		

Payee: *Individual authorized to accept payments.*

Name:	Prefix: Mr.	First Name: Joseph	Middle Name: K.
	Last Name: Lyou		Suffix: Ph.D.
Title:	President and CEO		
Complete Address:			
Street1:	660 S. Figueroa Street		
Street2:	Suite 1140		
City:	LOS ANGELES	State:	CA: California
Zip / Postal Code:	90017	Country:	USA: UNITED STATES
Phone Number:	(213) 223-6869	Fax Number:	
E-mail Address:	Joe@ccair.org		

Administrative Contact: *Individual from Sponsored Programs Office to contact concerning administrative matters (i.e., indirect cost rate computation, rebudgeting requests etc).*

Name:	Prefix: Ms.	First Name: Jennifer	Middle Name: Anne
	Last Name: Lentz		Suffix: Ph.D.
Title:	Deputy Director of Programs		
Complete Address:			
Street1:	660 S. Figueroa Street		
Street2:	Suite 1140		
City:	Los Angeles	State:	CA: California
Zip / Postal Code:	90017	Country:	USA: UNITED STATES
Phone Number:	5202374153	Fax Number:	
E-mail Address:	DrJenniferALentz@gmail.com		

EPA KEY CONTACTS FORM

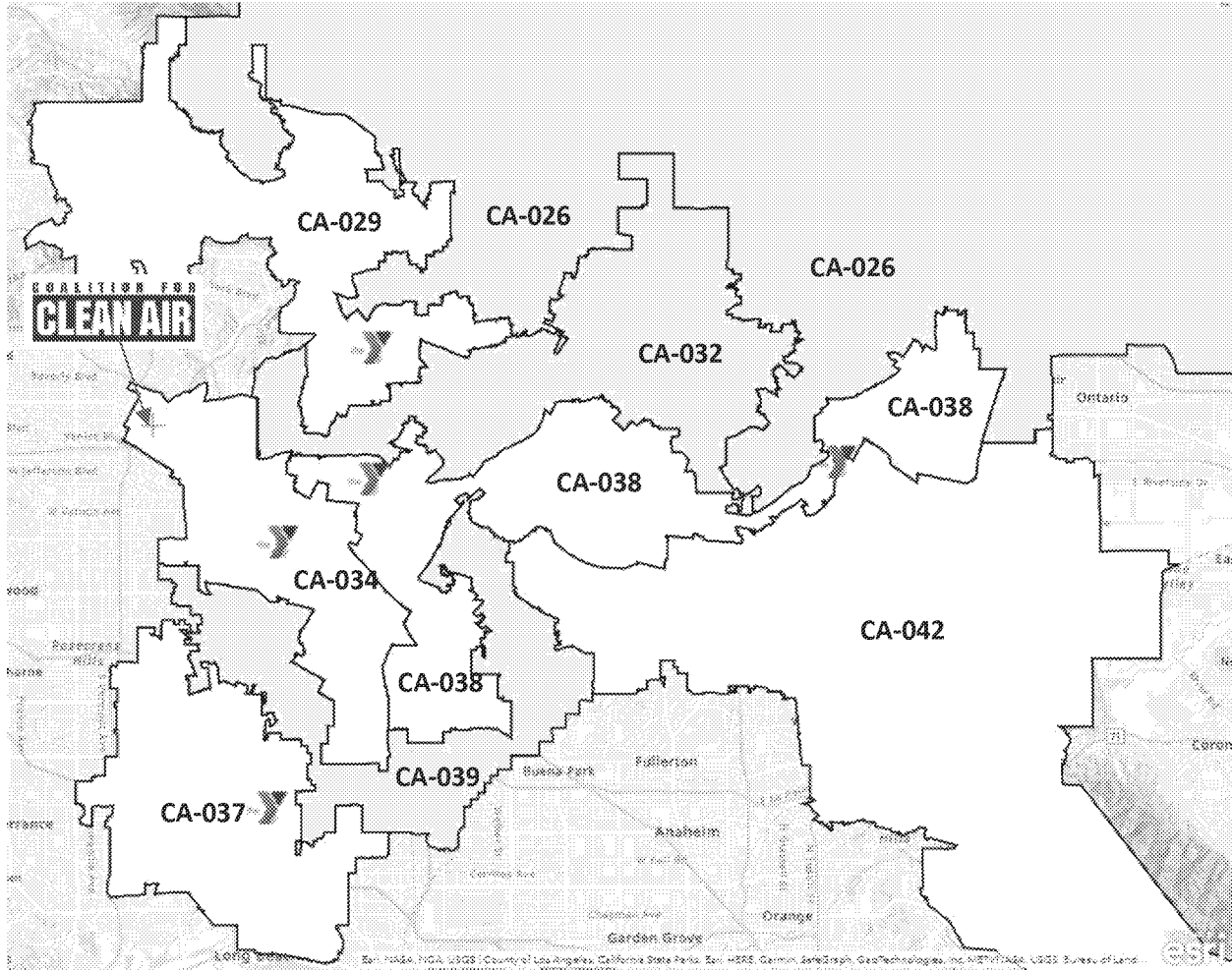
Project Manager: *Individual responsible for the technical completion of the proposed work.*

Name: **Prefix:** Ms. **First Name:** Jennifer **Middle Name:** Anne
Last Name: Lentz **Suffix:** Ph.D.
Title: Deputy Director of Programs

Complete Address:

Street1: 660 S. Figueroa St.
Street2: Suite 1140
City: LOS ANGELES **State:** CA: California
Zip / Postal Code: 90017 **Country:** USA: UNITED STATES
Phone Number: 5202374153 **Fax Number:**
E-mail Address: Jenny@ccair.org

Congressional Districts



The Applicant (Coalition for Clean Air) is located in Congressional District **CA-034**.

Our YMCA Project Locations are located in the following Congressional Districts: **CA-029, CA-034, CA-037, CA-038, and CA-042**, while also servicing the communities of **CA-026, CA-032, and CA-039**.

Project Narrative

I. COVER PAGE

Project Title: AirAware - Empowering YMCA Communities to Use Real-time Data and Awareness to Reduce Pollution Exposure

Applicant Information:

Applicant Organization Name and Website: Coalition for Clean Air (CCA), www.ccair.org
Address (Street, City, State, Zip): 660 S. Figueroa St., #1140, Los Angeles, CA 90017
Contact Name, Phone, Email, & Website: Jennifer A. Lentz, Ph.D., (213) 223-6867, Jenny@ccair.org
Organization's Federal ID #(s): DUNS (0385798480000), UEI (UAGNIX1DJKG7)

Set-Aside: No set-aside

Brief Description of Applicant Organization: The Coalition for Clean Air (CCA) is California's only statewide non-profit organization working exclusively on air quality and climate protection issues. From creating the idea for California's original Smog Check program in 1981 to helping pass legislation to put 1 million electric vehicles on California's roads by 2025, CCA has paved the way for socially and environmentally responsible air policy nationally and worldwide.

Project Partner(s):

- **Five YMCA locations** in disadvantaged communities in the Greater Los Angeles area
- **TD Environmental Services (TDE)** specializes in collecting and analyzing data for community groups and government agencies to provide clear insights into the air we breathe
- **IQAir Foundation (IQAir)** works to provide air quality monitoring and clean air technologies to disadvantaged and underserved communities, which are disproportionately affected by adverse environmental conditions

Project Location(s):

- **YMCA of West San Gabriel Valley** (401 Corto St., Alhambra, CA 91801)
- **Diamond Bar/Walnut YMCA** (22600 Sunset Crossing Rd., Diamond Bar, CA 91765)
- **Montebello Family YMCA** (2000 W. Beverly Blvd, Montebello, CA 90640)
- **Southeast-Rio Vista YMCA** (4801 E. 58th Street, Maywood, CA 90270)
- **Fairfield Family Branch YMCA** (4909 Atlantic Ave, Long Beach, CA 90805) – *Tentative Partner*

Air Pollutant Scope: Particle Pollution (PM_{2.5} at all locations, and ultrafine PM at select locations)

Budget Summary: the Total Project Cost (and Total EPA Funds Requested) is \$500,000

Project Period: Start Date: November 1, 2022 End Date: October 31, 2022

Short Project Description: This project is designed to monitor air quality in historically disadvantaged communities in air quality monitoring gaps near major traffic routes and manufacturing facilities. Working directly with five YMCA locations in the Los Angeles area, we will deploy monitors in disadvantaged areas that currently lack air quality monitoring. Disadvantaged communities like these have been disproportionately impacted by the COVID-19 pandemic, and addressing airborne pollutants is key to reducing the risk of respiratory infections. We will provide education, real-time indoor and outdoor air quality information at study locations, access to the free [AirVisual App](#) to monitor air quality, and indoor air quality mitigation as appropriate at YMCA facilities to further improve community health outcomes.

II. WORK PLAN

SECTION 1. PROJECT SUMMARY AND OVERALL APPROACH

A. Overall Project

The Coalition for Clean Air (CCA), in partnership with TD Environmental Services (TDE), the IQAir Foundation (IQAir), and local YMCAs, has developed a groundbreaking program that will track indoor and outdoor air quality in historically disadvantaged communities that are located in are quality monitoring “gap-areas” (areas that lack a comprehensive air quality monitoring system). By partnering with five YMCA locations, we will deploy sensors that will monitor indoor and outdoor air quality, provide mitigation services for our YMCA partners if they are found to have poor indoor air quality, and educate community members on air quality, the need for monitoring, and steps they can take to protect their own health when air quality is poor.

As a leader in the movement to monitor air quality and ensure all California residents are able to breathe clean air, the Coalition for Clean Air is ideally suited to lead this project. We will use our deep network of community partners, along with our unique expertise in identifying and addressing air quality monitoring gaps, to deploy the right equipment in the right places to ensure optimal outcomes. Our partner IQAir, as producers of high-quality monitoring equipment, will be responsible for both providing air quality sensors and air quality mitigation services as needed. TDE, a leader in air quality network service, will help provide network support, community outreach, and educational services for community members that attend YMCA locations where sensors are deployed. Finally, our partners at 5 YMCA locations will deploy indoor and outdoor air quality sensors.

Our work plan for this project involves the following elements:

- **Outdoor air quality monitoring:** The highest priority for this project is to monitor air quality in disadvantaged communities that likely fall in air quality monitoring gaps. Deploying outdoor air quality monitors will enable us to track vital data that will help us educate community members to improve health outcomes and advocate for policies that will lead to cleaner air. Each site will receive an air sensor measuring PM_{2.5} and some with Black Carbon and monitoring support, as well as an accessible dashboard displaying the real-time data that sites can choose to digitally display on monitors at the facility, connect to their websites, and/or distribute to YMCA users.
- **Indoor air quality monitoring and mitigation:** In addition to the need for outdoor monitoring, we recognize that indoor air quality is an overlooked yet essential element. Indoor spaces can have surprisingly poor air quality; for instance, firefighters are exposed to risky air quality while in the field, but studies have shown that indoor air quality at fire stations is dangerous and overlooked. On the other side, during “smoke season” indoor locations can be clean-air safe havens. The same dynamic is likely in play at YMCA facilities, and we will monitor indoor air quality to create and address it to create safe environments and respites from outdoor air quality, hopefully improving health outcomes for Y members. IQAir expertise and technology in this area will be critical for this part of our work, including the implementation of HVAC filters. Indoor air quality data will also be accessible via the same dashboard as the outdoor air quality data.
- **Community education:** Residents of historically disadvantaged communities are overlooked when providing information about air quality and personal protective measures, and we will address this through real-time information and educational programs at our partner facilities. Three groups will be engaged as a part of this effort: YMCA administrators, youth who attend YMCA programming, and adults who utilize YMCA facilities.

Project Narrative

The first element of this work is increasing awareness of air quality issues, a task which will be integrated into the existing educational efforts/structures at the YMCA's and complement what the Y is already doing. This will make it easier to implement and administer and replicate even after the grant period is over. Awareness education for all groups will be focused around general air quality information (what are pollutants, the Air Quality Index (AQI), health effects), and understanding and using real-time data to take actions that reduce their personal exposure to pollution. Participants will learn how to prepare for smoky days and advocate for cleaner air beyond the Y. Administrators will be taught about indoor air filtration and how to use it, and be able to access on-call support and training for any of the monitoring infrastructure and curriculum provided/developed.

B. Project Significance

At the nexus of youth, community, and neighborhoods impacted by air pollution sit local YMCAs. With over 2,500 nationwide locations that serve more than 10,000 communities, the YMCA is a vital community hub for many families and individuals in the United States. This program is built on the reality that many of the communities served by the YMCA are historically overlooked as we monitor and address air quality. By using YMCA facilities to monitor air quality and educate community members, we hope to build a model that can be repeated across the country.

It is not enough to deploy monitors and leave an area; rather, community members need to be empowered to understand the data we are collecting and the strategies they can use to manage their health when air quality is poor. The educational component of our program does exactly that by combining real-time data and education from air quality experts in a way that will be impactful for YMCA staff, leaders, and community members. **Section 2** details the demographics of the communities that are served by these YMCA locations; all are located in disadvantaged areas, with poverty rates as high as 20.38%. The data in **Section 2** also covers the high pollution levels experienced by these communities. These are areas that are completely forgotten as we discuss air quality, and this project will empower them and ensure they are not left behind any longer.

SECTION 2. COMMUNITY INVOLVEMENT

A. Community Partnerships

We have enlisted partners for this project with both deep experience and strong connections to the communities that will be served:

YMCA Partners - Our partnership with the YMCA provides us with direct guidance and leadership from the communities we hope to serve. CCA has deep, long-standing partnerships with grassroots groups in communities throughout Southern California, so we enter this project as a galvanizing force in the movement to improve air quality, environmental education, and climate mitigation in historically disadvantaged communities. Our partnership with the YMCA takes that existing base of networks and knowledge and enhances it even further. We have received commitments from the following YMCA organizations:

- **YMCA of West San Gabriel Valley** (401 Corto St., Alhambra, CA 91801) – This facility is located in an air quality monitoring gap in the 91801 zip code. The communities that likely access this location (Alhambra, Monterey Park, Rosemead and San Gabriel) have a population with a poverty rate of 13.19%. Using EPA's EJSCREEN tool, this location is in the 92nd percentile for exposure to PM_{2.5} and Diesel Particulate Matter (DPM). It is in the 91st for traffic proximity. CCA has worked with this YMCA on driving local implementation of California Clean Air Day in their community. Specifically,

Project Narrative

they hosted a series of educational events to help the larger community understand their role in clean air through a “clean air parade” that we funded through a microgrant. Our partnership continued by being the main educational institution featured in an international campaign we participated in called “Freedom to Breathe.”

- **Diamond Bar / Walnut YMCA** (22600 Sunset Crossing Rd., Diamond Bar, CA 91765) – This facility is located in an air quality monitoring gap area in the 91765 zip code. The communities that likely access this location (Diamond Bar and Pomona) have a poverty rate of 14.69%. On EJSCREEN this location is ranked in the 81st percentile for PM_{2.5} and DPM. For traffic it ranks in the 95th percentile. Diamond Bar is a strategically important community because it is the headquarters of the South Coast Air Quality Management District.
- **Montebello Family YMCA** (2000 W. Beverly Blvd, Montebello, CA 90640) – This facility is located in an air quality monitoring gap in the 90640 zip code. The community it serves (Montebello) has a poverty rate of 12.22%. It is in the 92nd percentile for DPM and traffic proximity and 92nd for PM_{2.5} exposure on EJSCREEN. Using CalEnviroscreen 4.0 it ranks in the 66th percentile for asthma and 88th for cardiovascular disease. CCA has worked for the past several years in the City of Montebello through California Clean Air Day. In 2020 and 2021, the transit district provided free rides on the day and in 2021 we worked with Montebello Unified School District on a clean air poetry contest where the winners received donated bicycles.
- **Southeast-Rio Vista YMCA** (4801 E. 58th Street, Maywood, CA 90270) – This facility is located in a census tract where 100% of residents identify as Hispanic. The community it serves (Maywood) has a poverty rate of 20.38%. On EJScreen it is ranked high for exposure to PM_{2.5} (95th), DPM (94th), and traffic exposure (89th). On CalEnviroscreen 4.0, it has a population at high risk for cardiovascular disease, ranking in the 84th percentile. CCA has worked with Comité Pro Uno, a local environmental justice organization, to complete two previous government funded environmental studies projects in Maywood, and is currently working on a third.
- **Fairfield Family Branch YMCA** (4909 Atlantic Ave, Long Beach, CA 90805) – *Tentative Commitment.* CCA has a long history of working in Long Beach in the policy-advocacy space due to its approximation to the busiest port complex in the United States. In 2020, we worked with three classrooms in the Long Beach Unified School District to educate students on issues related to air quality and how to use air quality monitors to perform scientific hypotheses through a program called “Kids Making Sense.”

These locations were selected based on a number of factors, including their location within a disadvantaged area and/or monitoring gap being at the forefront. They were also selected based on interest - enthusiastic buy in being an important element of any project-based partnership. Maps of these study areas are provided in [Appendix A](#).

Coalition for Clean Air (CCA) – CCA has spent the last 50 years advocating for clean air in the State of California. Through direct engagement with grassroots partners and high-profile events like California Clean Air Day, CCA raises awareness and creates meaningful policy change. CCA’s partnerships and long history of successful advocacy and education make it the ideal organization to lead this effort.

TD Environmental Services (TDE) – As a long-standing partner with CCA and participant in similar projects, TDE is well-suited to lead the education piece of our program, and provide monitoring support. TDE currently works with the Bay Air Quality Management District to create a community resource center called the Bay Air Center to provide tools, training, and support to selected community groups in the San Francisco Bay Area. In addition, TDE has developed many training courses and guidebooks on air quality

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monitoring, data analysis, and understanding air quality data. For the U.S. EPA, TDE worked on the Air Sensor Guidebook that will cover all aspects of using low-cost sensors to take air quality measurements. TDE is also working on a 3-year project for the National Institutes of Health to deploy new air monitoring technology (mobile and fixed based) with communities throughout the US and abroad to address their air quality monitoring and educational needs. Much of this content and expertise will be leveraged during this project. AirAware will also help TDE as they continue building relationships with community partners and grow further in the field of air pollution engagement.

The IQAir Foundation (IQAir) is a 501(c)(3) non-profit organization that supports disadvantaged and underserved communities, which are disproportionately affected by adverse environmental conditions. These areas and communities often suffer with higher rates of asthma and other resulting respiratory illnesses, with children in these vulnerable communities suffer higher rates of related illnesses as a result of this environmental inequality. The IQAir Foundation seeks to promote environmental justice by helping to improve access to air quality data, environmental literacy, and providing technology solutions to those unfairly affected by pollution as a result of socio-economic or racial factors. Stepping in when communities are unfairly affected by air pollution and environmental toxins, working in collaboration with environmental justice and community-based groups.

B. Community Engagement

A core component of this program is the creation of a sustainable monitoring and education model for the YMCAs, a process that requires input from YMCA administrators and community members. Administrators and education coordinators at each location will be instrumental in dictating the direction of educational material development, as this project aims to incorporate the air quality awareness education into existing structures and create as little extra burden as possible on YMCA partners. Throughout the process of development, both admin and YMCA community members will be asked for their feedback on monitoring, educational content, and ease of access to data, so that the program is created with community concerns in mind.

SECTION 3. ENVIRONMENTAL JUSTICE AND UNDERSERVED COMMUNITIES

This project will be designed and implemented with environmental justice as its core consideration. Our selection criteria for YMCA locations prioritized two factors: their standing in historically disadvantaged communities, particularly those impacted by the historical legacy of racism and housing segregation, and their lack of consideration in the air quality monitoring system. It is no coincidence that historically neglected communities do not receive consistent monitoring and education on the significance of air quality, and we have designed this program as an immediate, robust response to that.

Segregation in air quality is a phenomenon we have observed for years, but was recently studied in depth in a report covered by The New York Times. Using the East Bay and the communities of Oakland and Berkley as examples, they found that residents of communities that had been redlined in the past were exposed to a disproportionate amount of pollutants which led to suboptimal health outcomes (Zhong and Popovich, 2022). This has been a compounding issue with the COVID-19 pandemic, as this increased air pollution exposure leading to increased rates of asthma and other health conditions then also puts community members at a higher risk for poor outcomes from the virus (Njoku, 2021). Our program will address historical challenges like this through the following program elements:

- **Work in historically disadvantaged communities:** The communities we are serving mirror those in the study referenced above. They are low income, have historically faced discrimination, and/or have

inadequate access to health and environmental resources. They serve large communities of color and have poorer health outcomes.

- **Work in communities in air quality monitoring gaps:** We also emphasized finding those communities where air quality monitoring is insufficient. These are the places where the connection between air quality and racial justice is the strongest, and where there is the greatest need for our work.
- **Education:** Monitoring air quality is not enough; we have partnered with the YMCA because it is a high-traffic location where many residents will be able to access the education and air quality monitoring tools provided by the program and learn steps they can take to protect their health in times of poor air quality.

Our wraparound approach recognizes that the activism needed to create policy change and clean air in historically disadvantaged communities will be born out of education. We take our cue from those who have created - and continue to create - change in communities. Sharon Lavigne, an environmental justice advocate in Louisiana, summed the problem up by saying, succinctly, that industries “come to Black communities because they think no one’s going to say anything. They think no one is going to fight.” (Ramierz 2021). No matter the source of poor air quality, we want to empower community members to take charge and advocate for change. That process begins with monitoring and education.

As referenced in section 2, YMCA community input will be an integral part of this project. This will include soliciting input at regular intervals throughout the process of design and implementation, both verbal feedback and through the use of surveys. It is imperative that community members have influence over the program: as this is a project covering multiple locations and neighborhoods we cannot create a “one-size-fits-all” program and expect that it applies to every location, racial and ethnic group, socioeconomic condition, local political climate, and other identity or geographic influence on the current climate. Content (in-person and remote) will be translated into Spanish, and we will work with Ys to determine other relevant languages for translation.

SECTION 4. ENVIRONMENTAL RESULTS – OUTCOMES, OUTPUTS, AND PERFORMANCE MEASURES

A. Expected Project Outputs and Outcomes

AirAware aligns directly with Goal 4 of the EPA’s Strategic Plan, by focusing on “those in underserved and overburdened communities.” AirAware will work to ensure “clean and healthy air for communities” by providing real-time data and awareness of indoor and outdoor PM_{2.5} concentrations.

The outputs and outcomes of this project include the following:

- Identification and awareness of real-time local air quality at YMCA become commonplace and interwoven into staff and community member’s plans for the day.
- Increased awareness of when and how to reduce exposure during high pollution events (e.g., wildfires) and periods (e.g., morning rush hour). Activity guides developed with community input give the community specific and actionable ways to reduce their exposure to pollution.
- YMCA staff and community members of all ages can use their knowledge of air pollution to begin advocating for cleaner air outside of the Y and their efforts are supported by data.
- A sustainability plan identifies funding for program continuation beyond the EPA grant period and a replication toolkit is created for AirAware to expand to other YMCAs.
- Quarterly and Final reports detail technical progress, activities, output, and expenditures.

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B. Performance Measures and Plan

CCA's plan for measuring performance by developing a detailed project plan and accessing the entire team's progress. This assessment including tracking technical work, monitoring spending by the subcontractors, ensuring that reports are completed and submitted to EPA, and tracking the overall progress of the project. CCA has worked with many NGOs and private sector companies and has the existing.

The performance measures include:

- The number of people (staff, youth, and adults) trained each year at each YMCA
- Frequency assessment of filtration activity as a function of indoor/outdoor air quality will indicate how and when each YMCA uses the real-time data and acquired knowledge to improve air quality
- Annual survey among YMCA administrators about the effectiveness of the program and suggested improvements for integration into sustainability plan and future implementations

C. Timeline and Milestones

Below is our schedule of activities and milestones for the project. The key milestones are shown by the stars and represent when all monitoring begins, awareness and education begins at the YMCAs, and air filtration interventions being, and lastly when the sustainability plan is developed. On award of the contract, our team will develop a detailed project plan with all of the YMCAs.

Task Description	Year 1				Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Begin planning with YMCA sites												
Deploy monitors at all five YMCAs												
Air monitoring occurs												
Train YMCA staff on monitors												
Develop education, awareness, and outreach programs												
Ongoing education, awareness, and outreach programs												
Year 1 Review: Review Indoor and Outdoor Air Quality Data												
Install intervention measures (indoor HVAC filtration)												
Routine indoor HVAC filtration occurs												
Annual HVAC maintenance and filter replacements												
Year 2 Review: Compare baseline indoor air quality data from year 1 to indoor air quality data after improved MERV 16 filters have been added. Evaluate the effectiveness of the education, awareness, and outreach programs												
Revise the education, awareness, and outreach programs based on the feedback received during the Year 2 Review												
Begin Implementing the revised education, awareness, and outreach programs												
Year 3 Review: Review the effectiveness of the entire program (indoor and outdoor air quality monitoring; enhanced indoor filtration systems; and overall effectiveness of the community engagement efforts)												
Revise program based on feedback from the Year 3 Review, and develop a sustainability plan so each YMCA location can continue to run this program after the grant ends												
Write the Final Report summarizing the entire project, lessons learned, and planned next steps												

SECTION 5. QUALITY ASSURANCE STATEMENT

Please see [Appendix B](#) for the Quality Assurance Statement

SECTION 6. PROGRAMMATIC CAPABILITY AND PAST PERFORMANCE

A. Past Performance

CCA and our project partners (TDE and IQAir) have worked successfully with the U.S. Environmental Protection Agency (EPA), California Air Resources Board (CARB), the South Coast Air Quality Management District (SCAQMD), and others for many decades. CCA's President and CEO, Dr. Lyou, served as the Governor's Appointee on the SCAQMD Governing Board for 12 years. CCA staff have participated in many agency rulemaking proceedings while serving on advisory groups, work groups, and other stakeholder processes. They have testified before U.S. EPA, CARB, SCAQMD, and others. They meet with agency staff regularly. They have attended conferences, symposia, and other events. They have hosted events in which CARB and local air districts have participated. In sum, CCA and its community partners have a close, respectful, and longstanding professional working relationship with the EPA, CARB, and local air districts throughout California.

Funding Agency	Grant Program	Award Amount	Grant Duration	Reporting Frequency
CARB	Community Air Grant Program	\$500,000	2018 - 2021	Quarterly
CalEPA	EJ Small Grants Program	\$50,000	2020 - 2021	Bi-Annually
CARB	Community Air Grant Program	\$297,220	2020 - 2023	Quarterly
CARB	Community Air Grant Program	\$299,672	2022 - 2025	Bi-Annually

B. Reporting Requirements

CCA's Deputy Director of Programs has developed a system for efficiently tracking projects, managing subcontractors, and providing detailed progress reports to funders on time. If funded, CCA and subcontractors, will follow a similar model to the ones CCA have used in the past to track and provide written reports of project activities. Subcontractors will enter into written agreements with CCA prior to incurring project expenses. These agreements will identify responsibilities and reporting requirements. CCA travel costs will be recorded and reported in a manner consistent with CCA's personnel manual. Independent financial auditors will review CCA financial records at the conclusion of each fiscal year.

C. Staff Expertise

Our staff and project partners have extensive experience in the field of air quality monitoring and educational outreach/awareness. Main project staff's short bios are below. Full resumes for each staff member are included in [Appendix C](#).

- **Joseph K. Lyou, Ph.D.,** *President and CEO, Coalition for Clean Air*

In January 2020, Dr. Lyou was appointed to serve on the California Transportation Commission. He also served on the SCAQMD Governing Board from 2007 to 2019. Prior to his work at CCA, Dr. Lyou founded the California Environmental Rights Alliance, a public interest group dedicated to working on environmental justice issues. Dr. Lyou has spent 30 years helping community groups and concerned individuals with environmental protection issues, including air and water pollution, the clean-up of contaminated sites, and environmental justice.

- **Jennifer A. Lentz, Ph.D.,** *Deputy Director of Programs, Coalition for Clean Air*

Dr. Lentz manages a statewide air quality monitoring network and works with community members and educators to improve their awareness of the connection between air quality and health. Dr. Lentz serves on LA County's Sensitive Ecological Areas Technical Advisory Committee (SEATAC), and co-authored climate resilience plans for two Southern California communities (AOP 2015, CCA 2021).

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- **Timothy S. Dye, CCM, *President and Owner, TD Environmental Services***

Mr. Dye has over 30 years of experience in air quality monitoring, data management, and public communication. A visionary and entrepreneur, he has created air quality applications that vividly communicate air quality conditions. Tim works in many areas of air quality: 1) low-cost, air quality sensor evaluation and deployment, 2) air quality monitoring, 3) data management and analytics, and 4) citizen and community science applications. He's an avid Python programmer and has recently developed software to process data collected by mobile monitors. He is regularly sought out for his wide-ranging and strategic insights on air quality sensing by foundations, NGOs, government, industry, and companies worldwide.

- **Story Schwantes, *Air Quality Scientist, TD Environmental Services***

Ms. Schwantes is an air quality scientist with experience in STEM education, effective multimedia communication, and municipal sustainability initiatives. She has experience researching Colorado Front Range airborne heavy metals, working as an associate TV producer for Rocky Mountain PBS, and developing environmental justice curriculum for the Science Museum of Minnesota. Most recently, as a Sustainability Specialist for the City of Golden Valley, MN, Story worked to bridge gaps in communication between regional government and local community, helping guide municipal environmental initiatives. She now utilizes these skills in her work with TDE, taking on communication, technical, and project management responsibilities, and working to create effective air monitoring networks designed around community data access and action.

- **Glory Dolphin Hammes, CIE, CAFS, *Executive Director, IQAir Foundation***

Ms. Hammes' passion for environmental protection began in her formative years through beach cleanups in Santa Monica. She majored in business administration at the University of Southern California Marshall School of Business. Her entrepreneurial spirit was refined at the Lloyd Greif Center for Entrepreneurial Studies. She is an expert in environmental control and is a Certified Indoor Environmentalist and licensed HVAC contractor specializing in air quality. Ms. Hammes' passion to ensure everyone has access to breathe clean air inspired the launch of the IQAir Foundation. The initiative works to provide air quality monitoring and air filtration technology in schools and organizations located in the most polluted communities in the U.S.

- **Nancy Dinella, *Community Outreach Director, IQAir Foundation***

Ms. Dinella serves as the Community Outreach Director for the IQAir Foundation, which partners with community groups, environmental justice groups to bring high efficiency air filtration and air quality monitoring to schools in highly polluted areas. In her leisure time, Nancy has volunteered with Habitat for Humanity, YMCA and raising funds for awareness of health benefits to improve detection of Breast Cancer research, Juvenile Diabetes, and the American Heart Association. Nancy attended Central Michigan University and William Paterson University.

SECTION 7. BUDGET

A. Budget Detail

The budget outlined on the following page is designed to ensure that the air sensor data collected during this project is used and actionable for interventions to reduce exposure to air pollution, and improve the health and wellbeing of the disadvantaged communities served by the five partner YMCA locations. It includes labor, air monitoring equipment, air filtration, materials, and indirect changes.

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LINE ITEM AND ITEMIZED COST					EPA FUNDS
CCA's Personnel	Rate (\$/hr)	Hours	Budget per YMCA	# of YMCAs	Sub-Total
CEO & President	\$60	7.2	\$433	5	\$2,164
Director of Development	\$47	7.2	\$339	5	\$1,697
Deputy Director of Programs	\$34	180	\$6,057	5	\$30,285
Communications & Outreach Associate	\$28	72	\$2,016	5	\$10,080
Website & Graphics Manager	\$27	36	\$972	5	\$4,860
Office Manager	\$27	36	\$969	5	\$4,846
TOTAL PERSONNEL			\$10,786	5	\$53,931
Fringe Benefits*					Sub-Total
28% of Salary and Wages @ 28% x Total Personnel					\$15,101
			TOTAL FRINGE BENEFITS		\$15,101
Travel (Mileage for CCA Staff)	Rate (\$/mi)	Total (mi)	# of Trips	# of YMCAs	Sub-Total
YMCA of West San Gabriel Valley	\$0.585	38.5	3	1	\$68
Diamond Bar / Walnut YMCA	\$0.585	64.0	3	1	\$112
Montebello Family YMCA	\$0.585	33.6	3	1	\$59
Southeast-Rio Vista YMCA	\$0.585	23.1	3	1	\$41
Fairfield Family Branch YMCA – <i>Tentative</i>	\$0.585	2.4	3	1	\$4
			TOTAL TRAVEL		\$284
Equipment					Sub-Total
Equipment is included in the quotes for the Contractual work from IQAir and TDE					\$0
			TOTAL EQUIPMENT		\$0
Supplies			Budget per YMCA	# of YMCAs	Sub-Total
Outreach Materials and Supplies			\$500	5	\$2,500
			TOTAL SUPPLIES		\$2,500
Contractual					
TD Environmental (TDE) Support Services Contract			Budget per YMCA	# of YMCAs	Sub-Total
Tailored awareness, outreach, education for each YMCA for 3 years			\$20,000	5	\$100,000
Black Carbon Instruments, Installation, and Supplies (3 years)			\$21,037	2	\$42,074
			TDE Subtotal	5	\$142,074
IQAir Foundation (IQAir) Support Services Contract			Budget per YMCA	# of YMCAs	Sub-Total
YMCA of West San Gabriel Valley			\$ 28,279	1	\$ 28,279
Diamond Bar / Walnut YMCA			\$ 23,283	1	\$ 23,283
Montebello Family YMCA			\$ 32,183	1	\$ 32,183
Southeast-Rio Vista YMCA			\$ 32,178	1	\$ 32,178
Fairfield Family Branch YMCA – <i>Tentative, Pending Confirmation</i>			\$ 30,000	1	\$ 30,000
			IQAir Subtotal	5	\$ 145,923
Report Writer	Rate (\$/hr)	Hours			Sub-Total
Contracted Report Writer	\$ 70	60			\$ 4,200
			Report Writer Subtotal		\$ 4,200
			TOTAL CONTRACTUAL		\$292,197
Other			Budget per YMCA	# of YMCAs	Sub-Total
Printing Outreach Materials			\$531	5	\$2,654
Subawards -- Participating YMCA Locations			\$10,000	5	\$50,000
TOTAL OTHER			\$10,531	5	\$52,654
Total Direct Charges¹⁰					\$416,666
Indirect Charges					Sub-Total
Federal Indirect Cost Rate (20%) x Total Direct Costs = Indirect Costs					\$83,333
Total Indirect Charges					\$83,333
TOTAL PROJECT COST					\$500,000

* CCA's Fringe Benefits rate of 28% has been determined by analyzing the cost of CCA's employee Health Insurance (medical, dental, and visual), Cost of Leave, Life Insurance, and 401(k) contributions over the past five years

B. Reasonableness of Costs

YMCAs are a long-standing community hub for various activities with a strong focus on youth and family health and wellbeing, making them a perfect partner in air quality monitoring outreach, awareness, and interventions. This section focuses on explaining the budget and describing the major budget components and our rationale.

A couple of overarching themes were used to develop this project:

1. We want to ensure that the air sensor data are used and actionable for interventions to reduce exposure to air pollution and heightened interest in advocating for cleaner air.
2. Based on our many past interactions with community groups and schools, it takes substantial time and many meetings to make things happen. We've budgeted the time we project will be necessary to fully implement the collaborative pieces of the project.
3. Each YMCA will likely have different needs, constraints, and opportunities, so our approach includes more time and awareness for engagement with each YMCA to foster their participation and meet their specific needs.
4. Based on our experience with past outreach projects, the equipment budget should be substantially less than the outreach/awareness budget – this project meets this.

The project budget includes the following items:

- **Management Activities** (10% of the budget)

Contact management by CCA consists of the project oversight, reporting, project monitoring, subcontracting. Sustainability planning by CCA and subcontractors will work with each YMCA to identify a way to continue monitoring and air purification after the EPA funding period.

- **Equipment** (17% of the budget)

- Air sensors and instruments include one (1) outdoor air sensor and three (3) indoor air sensors at each YMCA for 20 air sensors that measure PM_{2.5} and CO₂. This includes three years of installation, operations, repairs, data management, data communications, and replacement. (\$9K/YMCA for a total of \$45K for five YMCAs)
- Black Carbon (BC) instrument to be procured and installed at two YMCA for three years. This includes supplies and calibration equipment. (\$42K for two devices)
- Data management using the IQAir cloud data system.
- The AirVisual app, which is a free smartphone app that provides real-time data for each YMCA and its community members, and is available in 16 languages.
- Supplies would include outreach materials and a monitor to view real-time data from the air sensors within each YMCA.

- **Interventions** (46% of the budget)

These actions are a critical part of our projects to help staff, adults, and youth at YMCAs fully understand and use the air quality data to take action to reduce exposure to air pollution. These interventions occur from two efforts 1) awareness activities include working with each YMCA to provide training, factsheet, educational materials, youth engagement, and more. 2) The ventilation intervention will include HVCA modification, services, and support for three years.

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- **YMCA direct funding** (10% of the budget)

Each YMCA would receive \$10,000 for contract support that provides funds for expenses and compensates for activities and volunteer staff participating in training and outreach.

- **Indirect cost** (17% of the budget)

For this application CCA uses the federally negotiated indirect cost rate of 20% of the total direct project costs. CCA will use the indirect cost funds to cover administrative costs which include prorated amounts for administrative and professional services (accountant, bookkeeper, payroll services, information technology, and auditor), office rent, building repairs and maintenance, office equipment leases, utilities, liability insurance, and other overhead expenses.

CCA will follow the EPA's Best Practice Guide for Procuring Services, Supplies, and Equipment Under EPA Assistance Agreements, EPA's Subaward Policy (GPI) 16-01, RAIN-2018-G05-R1, "EPA Guidance on Participant Support Costs."

C. Expenditure of Awarded Funds

The Coalition for Clean Air is adept at managing, reporting and tracking government grants in an efficient and transparent manner. Over the past two years, we've managed more than 10 of these grants at both the State and local levels. Our transparency score on Charity Navigator is 86, providing us with a "give with confidence" rating. We also make our annual audit publicly available.

SECTION 8. WORKS CITED

AOP (2015) City of Long Beach Climate Resiliency Assessment Report. Prepared by the Aquarium of the Pacific (AOP), for the City of Long Beach, California. 89pp ([link](#))

CCA (2021) Maywood Community Action Plan. Prepared by the Coalition for Clean Air (CCA) for the California Air Resources Board (CARB) and the California Environmental Protection Agency (CalEPA). 51pp. ([link](#))

Njoku AU (2021) COVID-19 and environmental racism: Challenges and Recommendations. *Eur. J. Environ. Public Health* 5(2021): em0079.

Ramierz R (2021) There's a clear fix to helping Black communities fight pollution. Vox article posted Feb. 26, 2021. ([link](#))

Zhong R and Popovich N (2022) How Air Pollution Across America Reflects Racist Policy From the 1930s. New York Times article posted on March 9, 2022. ([link](#))

SECTION 9. OPTIONAL ATTACHMENTS

Appendix A. Project Locations ([Link to Document](#))

Appendix B. Quality Assurance Statement ([Link to Document](#))

Appendix C. Resumes of Key Project Staff ([Link to Document](#))

Appendix D. Letters of Support and Commitment from Project Partners ([Link to Document](#))

Appendix E. Proof of Nonprofit Status ([Link to Document](#))



ADDITIONAL KEY CONTACTS

(Use as many sheets as needed.)

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2030-0020). Responses to this collection of information are required to obtain an assistance agreement (40 CFR Part 30, 40 CFR Part 31, and 40 CFR Part 33 for awards made prior to December 26, 2014, and 2 CFR 200, 2 CFR 1500, and 40 CFR Part 33 for awards made after December 26, 2014). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information is estimated to be 0.5 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the Regulatory Support Division Director, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Major Co-Investigators: *Individual responsible for the completion of major portions of the proposed work.*

Name: Timothy S. Dye, CCM

Title: President and Owner

Mailing Address: TD Environmental Services

245 Kentucky Street, Suite A, Petaluma, CA 94952

Phone Number: (707) 310-5541

FAX Number:

E-Mail Address: tim@tdenviro.com

Web URL: TDEnviro.com

Major Co-Investigators: *Individual responsible for the completion of major portions of the proposed work.*

Name: Nancy A. Dinella

Title: Director of Community Outreach

Mailing Address: IQAir Foundation

14351 Firestone Blvd., La Mirada, CA 90638

Phone Number: (949) 300-3433

FAX Number:

E-Mail Address: nancy.dinella@iqairfoundation.org

Web URL: <https://www.iqair.com/us/about-iqair/iqair-foundation>

Major Co-Investigators: *Individual responsible for the completion of major portions of the proposed work.*

Name:

Title:

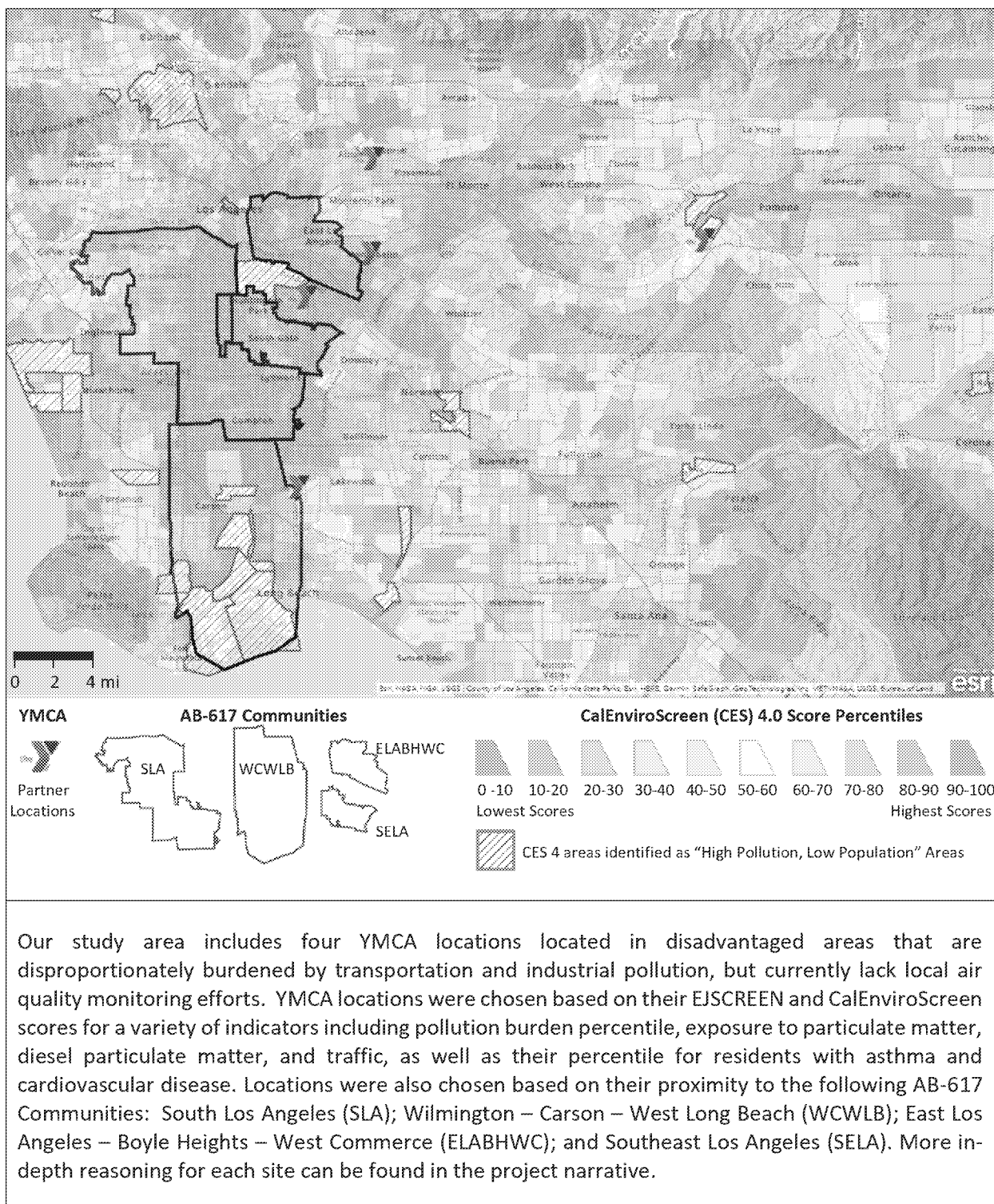
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Phone Number:

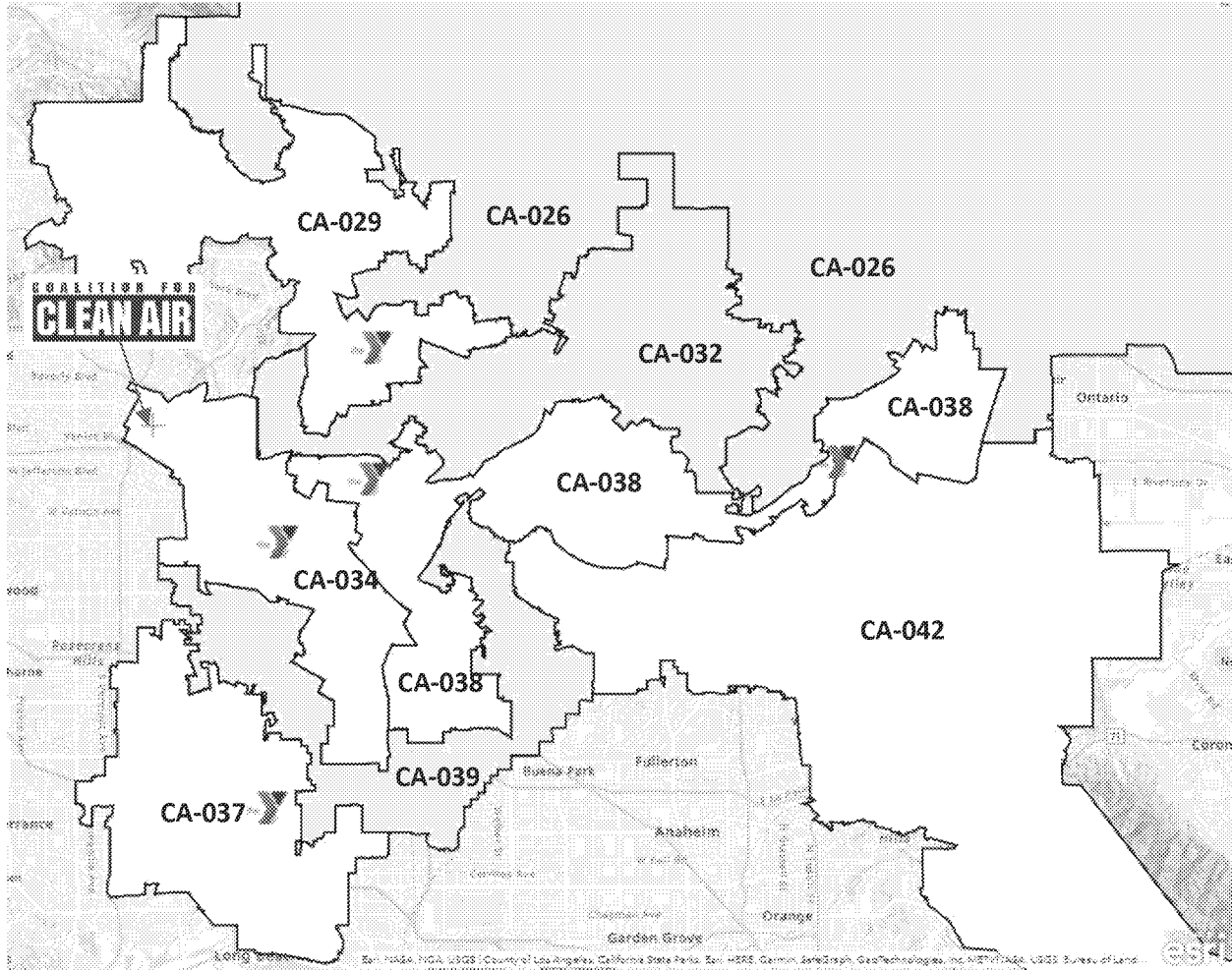
FAX Number:

E-Mail Address:

Web URL:



Congressional Districts



The Applicant (Coalition for Clean Air) is located in Congressional District **CA-034**.

Our YMCA Project Locations are located in the following Congressional Districts: **CA-029, CA-034, CA-037, CA-038, and CA-042**, while also servicing the communities of **CA-026, CA-032, and CA-039**.

Project Narrative

I. COVER PAGE

Project Title: AirAware - Empowering YMCA Communities to Use Real-time Data and Awareness to Reduce Pollution Exposure

Applicant Information:

Applicant Organization Name and Website: Coalition for Clean Air (CCA), www.ccair.org
Address (Street, City, State, Zip): 660 S. Figueroa St., #1140, Los Angeles, CA 90017
Contact Name, Phone, Email, & Website: Jennifer A. Lentz, Ph.D., (213) 223-6867, Jenny@ccair.org
Organization's Federal ID #(s): DUNS (0385798480000), UEI (UAGNIX1DJKG7)

Set-Aside: No set-aside

Brief Description of Applicant Organization: The Coalition for Clean Air (CCA) is California's only statewide non-profit organization working exclusively on air quality and climate protection issues. From creating the idea for California's original Smog Check program in 1981 to helping pass legislation to put 1 million electric vehicles on California's roads by 2025, CCA has paved the way for socially and environmentally responsible air policy nationally and worldwide.

Project Partner(s):

- **Five YMCA locations** in disadvantaged communities in the Greater LA Area
- **TD Environmental Services** specializes in collecting and analyzing data for community groups and government agencies to provide clear insights into the air we breathe.
- **IQAir Foundation** works to provide air quality monitoring and clean air technologies to disadvantaged and underserved communities, which are disproportionately affected by adverse environmental conditions.

Project Location(s):

- **YMCA of West San Gabriel Valley** (401 Corto St., Alhambra, CA 91801)
- **Diamond Bar/Walnut YMCA** (22600 Sunset Crossing Rd., Diamond Bar, CA 91765)
- **Montebello Family YMCA** (2000 W. Beverly Blvd, Montebello, CA 90640)
- **Southeast-Rio Vista YMCA** (4801 E. 58th Street, Maywood, CA 90270)
- **Fairfield Family Branch YMCA** (4909 Atlantic Ave, Long Beach, CA 90805) – *Tentative Partner*

Air Pollutant Scope: Particle Pollution (PM_{2.5} at all locations, and ultrafine PM at select locations)

Budget Summary: the Total Project Cost (and Total EPA Funds Requested) is \$500,000

Project Period: Start Date: November 1, 2022 End Date: October 31, 2022

Short Project Description: This project is designed to monitor air quality in historically disadvantaged communities in air quality monitoring gaps near major traffic routes and manufacturing facilities. Working directly with 5 YMCA locations in the Los Angeles area, we will deploy monitors in disadvantaged areas that currently lack air quality monitoring. Disadvantaged communities like these have been disproportionately impacted by the COVID-19 pandemic, and addressing airborne pollutants is key to reducing the risk of respiratory infections. We will provide education, real-time information at locations, access to the free AirVisual App to monitor air quality, and indoor air quality mitigation as appropriate at YMCA facilities to further improve community health outcomes.

II. WORK PLAN

SECTION 1. PROJECT SUMMARY AND OVERALL APPROACH

A. Overall Project

The Coalition for Clean Air (CCA), in partnership with TD Environmental Services (TDE), the IQAir Foundation (IQAir), and local YMCAs, has developed a groundbreaking program that will track indoor and outdoor air quality in historically disadvantaged communities that are located in are quality monitoring “gap-areas” (areas that lack a comprehensive air quality monitoring system). By partnering with five YMCA locations, we will deploy sensors that will monitor indoor and outdoor air quality, provide mitigation services for our YMCA partners if they are found to have poor indoor air quality, and educate community members on air quality, the need for monitoring, and steps they can take to protect their own health when air quality is poor.

As a leader in the movement to monitor air quality and ensure all California citizens are able to breathe clean air, the Coalition for Clean Air is ideally suited to lead this project. We will use our deep network of community partners, along with our unique expertise in identifying and addressing air quality monitoring gaps, to deploy the right equipment in the right places to ensure optimal outcomes. Our partner IQAir, as producers of high-quality monitoring equipment, will be responsible for both providing air quality sensors and air quality mitigation services as needed. TDE, a leader in air quality network service, will help provide network support, community outreach, and educational services for community members that attend YMCA locations where sensors are deployed. Finally, our partners at 5 YMCA locations will deploy indoor and outdoor air quality sensors.

Our work plan for this project involves the following elements:

- **Outdoor air quality monitoring:** The highest priority for this project is to monitor air quality in disadvantaged communities that likely fall in air quality monitoring gaps. Deploying outdoor air quality monitors will enable us to track vital data that will help us educate community members to improve health outcomes and advocate for policies that will lead to cleaner air. Each site will receive an air sensor measuring PM_{2.5} and some with Black Carbon and monitoring support, as well as an accessible dashboard displaying the real-time data that sites can choose to digitally display on monitors at the facility, connect to their websites, and/or distribute to YMCA users.
- **Indoor air quality monitoring and mitigation:** In addition to the need for outdoor monitoring, we recognize that indoor air quality is an overlooked yet essential element. Indoor spaces can have surprisingly poor air quality; for instance, firefighters are exposed to risky air quality while in the field, but studies have shown that indoor air quality at fire stations is dangerous and overlooked. On the other side, during “smoke season” indoor locations can be clean-air safe havens. The same dynamic is likely in play at YMCA facilities, and we will monitor indoor air quality to create and address it to create safe environments and respites from outdoor air quality, hopefully improving health outcomes for Y members. IQAir expertise and technology in this area will be critical for this part of our work, including the implementation of HVAC filters. Indoor air quality data will also be accessible via the same dashboard as the outdoor air quality data.
- **Community education:** Residents of historically disadvantaged communities are overlooked when providing information about air quality and personal protective measures, and we will address this through real-time information and educational programs at our partner facilities. Three groups will be engaged as a part of this effort: YMCA administrators, youth who attend YMCA programming, and adults who utilize YMCA facilities.

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The first element of this work is increasing awareness of air quality issues, a task which will be integrated into the existing educational efforts/structures at the YMCA's and complement what the Y is already doing. This will make it easier to implement and administer and replicate even after the grant period is over. Awareness education for all groups will be focused around general air quality information (what are pollutants, the Air Quality Index (AQI), health effects), and understanding and using real-time data to take actions that reduce their personal exposure to pollution. Participants will learn how to prepare for smoky days and advocate for cleaner air beyond the Y. Administrators will be taught about indoor air filtration and how to use it, and be able to access on-call support and training for any of the monitoring infrastructure and curriculum provided/developed.

B. Project Significance

At the nexus of youth, community, and neighborhoods impacted by air pollution sit local YMCAs. With over 2,500 nationwide locations that serve more than 10,000 communities, the YMCA is a vital community hub for many families and individuals in the United States. This program is built on the reality that many of the communities served by the YMCA are historically overlooked as we monitor and address air quality. By using YMCA facilities to monitor air quality and educate community members, we hope to build a model that can be repeated across the country.

It is not enough to deploy monitors and leave an area; rather, community members need to be empowered to understand the data we are collecting and the strategies they can use to manage their health when air quality is poor. The educational component of our program does exactly that by combining real-time data and education from air quality experts in a way that will be impactful for YMCA staff, leaders, and community members. Section 2 details the demographics of the communities that are served by these YMCA locations; all are located in disadvantaged areas, with poverty rates as high as 20.38%. The data in section 2 also covers the high pollution levels experienced by these communities. These are areas that are completely forgotten as we discuss air quality, and this project will empower them and ensure they are not left behind any longer.

SECTION 2. COMMUNITY INVOLVEMENT

A. Community Partnerships

We have enlisted partners for this project with both deep experience and strong connections to the communities that will be served:

YMCA Partners - Our partnership with the YMCA provides us with direct guidance and leadership from the communities we hope to serve. CCA has deep, long-standing partnerships with grassroots groups in communities throughout Southern California, so we enter this project as a galvanizing force in the movement to improve air quality, environmental education, and climate mitigation in historically disadvantaged communities. Our partnership with the YMCA takes that existing base of networks and knowledge and enhances it even further. We have received commitments from the following YMCA organizations:

- **YMCA of West San Gabriel Valley** (401 Corto St., Alhambra, CA 91801) – This facility is located in an air quality monitoring gap in the 91801 zip code. The communities that likely access this location (Alhambra, Monterey Park, Rosemead and San Gabriel) have a population with a poverty rate of 13.19%. Using EPA's EJSCREEN tool, this location is in the 92nd percentile for exposure to PM_{2.5} and Diesel Particulate Matter (DPM). It is in the 91st for traffic proximity. CCA has worked with this YMCA on driving local implementation of California Clean Air Day in their community. Specifically,

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they hosted a series of educational events to help the larger community understand their role in clean air through a “clean air parade” that we funded through a microgrant. Our partnership continued by being the main educational institution featured in an international campaign we participated in called “Freedom to Breathe.”

- **Diamond Bar / Walnut YMCA** (22600 Sunset Crossing Rd., Diamond Bar, CA 91765) – This facility is located in an air quality monitoring gap area in the 91765 zip code. The communities that likely access this location (Diamond Bar and Pomona) have a poverty rate of 14.69%. On EJSCREEN this location is ranked in the 81st percentile for PM_{2.5} and DPM. For traffic it ranks in the 95th percentile. Diamond Bar is a strategically important community because it is the headquarters of the South Coast Air Quality Management District.
- **Montebello Family YMCA** (2000 W. Beverly Blvd, Montebello, CA 90640) – This facility is located in an air quality monitoring gap in the 90640 zip code. The community it serves (Montebello) has a poverty rate of 12.22%. It is in the 92nd percentile for DPM and traffic proximity and 92nd for PM_{2.5} exposure on EJSCREEN. Using CalEnviroscreen 4.0 it ranks in the 66th percentile for asthma and 88th for cardiovascular disease. CCA has worked for the past several years in the City of Montebello through California Clean Air Day. In 2020 and 2021, the transit district provided free rides on the day and in 2021 we worked with Montebello Unified School District on a clean air poetry contest where the winners received donated bicycles.
- **Southeast-Rio Vista YMCA** (4801 E. 58th Street, Maywood, CA 90270) – This facility is located in a census tract where 100% of residents identify as Hispanic. The community it serves (Maywood) has a poverty rate of 20.38%. On EJScreen it is ranked high for exposure to PM_{2.5} (95th), DPM (94th), and traffic exposure (89th). On CalEnviroscreen 4.0, it has a population at high risk for cardiovascular disease, ranking in the 84th percentile. CCA has worked with Comité Pro Uno, a local environmental justice organization, to complete two previous government funded environmental studies projects in Maywood, and is currently working on a third.
- **Fairfield Family Branch YMCA** (4909 Atlantic Ave, Long Beach, CA 90805) – *Tentative Commitment.* CCA has a long history of working in Long Beach in the policy-advocacy space due to its approximation to the busiest port complex in the United States. In 2020, we worked with three classrooms in the Long Beach Unified School District to educate students on issues related to air quality and how to use air quality monitors to perform scientific hypotheses through a program called “Kids Making Sense.”

These locations were selected based on a number of factors, including their location within a disadvantaged area and/or monitoring gap being at the forefront. They were also selected based on interest - enthusiastic buy in being an important element of any project-based partnership. Maps of these study areas are provided in [Appendix A](#).

Coalition for Clean Air (CCA) – CCA has spent the last 50 years advocating for clean air in the State of California. Through direct engagement with grassroots partners and high-profile events like California Clean Air Day, CCA raises awareness and creates meaningful policy change. CCA’s partnerships and long history of successful advocacy and education make it the ideal organization to lead this effort.

TD Environmental Services (TDE) – As a long-standing partner with CCA and participant in similar projects, TDE is well-suited to lead the education piece of our program, and provide monitoring support. TDE currently works with the Bay Air Quality Management District to create a community resource center called the Bay Air Center to provide tools, training, and support to selected community groups in the San Francisco Bay Area. In addition, TDE has developed many training courses and guidebooks on air quality

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monitoring, data analysis, and understanding air quality data. For the U.S. EPA, TDE worked on the Air Sensor Guidebook that will cover all aspects of using low-cost sensors to take air quality measurements. TDE is also working on a 3-year project for the National Institutes of Health to deploy new air monitoring technology (mobile and fixed based) with communities throughout the US and abroad to address their air quality monitoring and educational needs. Much of this content and expertise will be leveraged during this project. AirAware will also help TDE as they continue building relationships with community partners and grow further in the field of air pollution engagement.

The IQAir Foundation (IQAir) is a 501(c)(3) non-profit organization that supports disadvantaged and underserved communities, which are disproportionately affected by adverse environmental conditions. These areas and communities often suffer with higher rates of asthma and other resulting respiratory illnesses, with children in these vulnerable communities suffer higher rates of related illnesses as a result of this environmental inequality. The IQAir Foundation seeks to promote environmental justice by helping to improve access to air quality data, environmental literacy, and providing technology solutions to those unfairly affected by pollution as a result of socio-economic or racial factors. Stepping in when communities are unfairly affected by air pollution and environmental toxins, working in collaboration with environmental justice and community-based groups.

B. Community Engagement

A core component of this program is the creation of a sustainable monitoring and education model for the YMCAs, a process that requires input from YMCA administrators and community members. Administrators and education coordinators at each location will be instrumental in dictating the direction of educational material development, as this project aims to incorporate the air quality awareness education into existing structures and create as little extra burden as possible on YMCA partners. Throughout the process of development, both admin and YMCA community members will be asked for their feedback on monitoring, educational content, and ease of access to data, so that the program is created with community concerns in mind.

SECTION 3. ENVIRONMENTAL JUSTICE AND UNDERSERVED COMMUNITIES

This project will be designed and implemented with environmental justice as its core consideration. Our selection criteria for YMCA locations prioritized two factors: their standing in historically disadvantaged communities, particularly those impacted by the historical legacy of racism and housing segregation, and their lack of consideration in the air quality monitoring system. It is no coincidence that historically neglected communities do not receive consistent monitoring and education on the significance of air quality, and we have designed this program as an immediate, robust response to that.

Segregation in air quality is a phenomenon we have observed for years, but was recently studied in depth in a report covered by The New York Times. Using the East Bay and the communities of Oakland and Berkley as examples, they found that residents of communities that had been redlined in the past were exposed to a disproportionate amount of pollutants which led to suboptimal health outcomes (Zhong and Popovich, 2022). This has been a compounding issue with the COVID-19 pandemic, as this increased air pollution exposure leading to increased rates of asthma and other health conditions then also puts community members at a higher risk for poor outcomes from the virus (Njoku, 2021). Our program will address historical challenges like this through the following program elements:

- **Work in historically disadvantaged communities:** The communities we are serving mirror those in the study referenced above. They are low income, have historically faced discrimination, and/or have

inadequate access to health and environmental resources. They serve large communities of color and have poorer health outcomes.

- **Work in communities in air quality monitoring gaps:** We also emphasized finding those communities where air quality monitoring is insufficient. These are the places where the connection between air quality and racial justice is the strongest, and where there is the greatest need for our work.
- **Education:** Monitoring air quality is not enough; we have partnered with the YMCA because it is a high-traffic location where many residents will be able to access the education and air quality monitoring tools provided by the program and learn steps they can take to protect their health in times of poor air quality.

Our wraparound approach recognizes that the activism needed to create policy change and clean air in historically disadvantaged communities will be born out of education. We take our cue from those who have created - and continue to create - change in communities. Sharon Lavigne, an environmental justice advocate in Louisiana, summed the problem up by saying, succinctly, that industries “come to Black communities because they think no one’s going to say anything. They think no one is going to fight.” (Ramierz 2021). No matter the source of poor air quality, we want to empower community members to take charge and advocate for change. That process begins with monitoring and education.

As referenced in section 2, YMCA community input will be an integral part of this project. This will include soliciting input at regular intervals throughout the process of design and implementation, both verbal feedback and through the use of surveys. It is imperative that community members have influence over the program: as this is a project covering multiple locations and neighborhoods we cannot create a “one-size-fits-all” program and expect that it applies to every location, racial and ethnic group, socioeconomic condition, local political climate, and other identity or geographic influence on the current climate. Content (in-person and remote) will be translated into Spanish, and we will work with Ys to determine other relevant languages for translation.

SECTION 4. ENVIRONMENTAL RESULTS – OUTCOMES, OUTPUTS, AND PERFORMANCE MEASURES

A. Expected Project Outputs and Outcomes

AirAware aligns directly with Goal 4 of the EPA’s Strategic Plan, by focusing on “those in underserved and overburdened communities.” AirAware will work to ensure “clean and healthy air for communities” by providing real-time data and awareness of indoor and outdoor PM_{2.5} concentrations.

The outputs and outcomes of this project include the following:

- Identification and awareness of real-time local air quality at YMCA become commonplace and interwoven into staff and community member’s plans for the day.
- Increased awareness of when and how to reduce exposure during high pollution events (e.g., wildfires) and periods (e.g., morning rush hour). Activity guides developed with community input give the community specific and actionable ways to reduce their exposure to pollution.
- YMCA staff and community members of all ages can use their knowledge of air pollution to begin advocating for cleaner air outside of the Y and their efforts are supported by data.
- A sustainability plan identifies funding for program continuation beyond the EPA grant period and a replication toolkit is created for AirAware to expand to other YMCAs.
- Quarterly and Final reports detail technical progress, activities, output, and expenditures.

Project Narrative

B. Performance Measures and Plan

CCA plan for measure performance by developing a detailed project plan and accessing the entire team's progress. This assessment including tracking technical work, monitoring spending by the subcontractors, ensuring that reports are completed and submitted to EPA, and tracking the overall progress of the project. CCA has worked with many NGOs and private sector companies and has the existing.

The performance measures include:

- The number of people (staff, youth, and adults) trained each year at each YMCA
- Frequency assessment of filtration activity as a function of indoor/outdoor air quality will indicate how and when each YMCA uses the real-time data and acquired knowledge to improve air quality
- Annual survey among YMCA administrators about the effectiveness of the program and suggested improvements for integration into sustainability plan and future implementations

C. Timeline and Milestones

Below is our schedule of activities and milestones for the project. The key milestones are shown by the stars and represent when all monitoring begins, awareness and education begins at the YMCAs, and air filtration interventions being, and lastly when the sustainability plan is developed. On award of the contract, our team will develop a detailed project plan with all of the YMCAs.

Task Description	Year 1				Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Begin planning with YMCA sites												
Deploy monitors at all five YMCAs												
Air monitoring occurs												
Train YMCA staff on monitors												
Develop education, awareness, and outreach programs												
Ongoing education, awareness, and outreach programs												
Year 1 Review: Review Indoor and Outdoor Air Quality Data												
Install intervention measures (indoor HVAC filtration)												
Routine indoor HVAC filtration occurs												
Annual HVAC maintenance and filter replacements												
Year 2 Review: Compare baseline indoor air quality data from year 1 to indoor air quality data after improved MERV 16 filters have been added. Evaluate the effectiveness of the education, awareness, and outreach programs												
Revise the education, awareness, and outreach programs based on the feedback received during the Year 2 Review												
Begin Implementing the revised education, awareness, and outreach programs												
Year 3 Review: Review the effectiveness of the entire program (indoor and outdoor air quality monitoring; enhanced indoor filtration systems; and overall effectiveness of the community engagement efforts)												
Revise program based on feedback from the Year 3 Review, and develop a sustainability plan so each YMCA location can continue to run this program after the grant ends												
Write the Final Report summarizing the entire project, lessons learned, and planned next steps												

SECTION 5. QUALITY ASSURANCE STATEMENT

Please see [Appendix B](#) for the Quality Assurance Statement

SECTION 6. PROGRAMMATIC CAPABILITY AND PAST PERFORMANCE

A. Past Performance

CCA and our project partners (TDE and IQAir) have worked successfully with the U.S. Environmental Protection Agency (EPA), California Air Resources Board (CARB), the South Coast Air Quality Management District (SCAQMD), and others for many decades. CCA's President and CEO, Dr. Lyou, served as the Governor's Appointee on the SCAQMD Governing Board for 12 years. CCA staff have participated in many agency rulemaking proceedings while serving on advisory groups, work groups, and other stakeholder processes. They have testified before U.S. EPA, CARB, SCAQMD, and others. They meet with agency staff regularly. They have attended conferences, symposia, and other events. They have hosted events in which CARB and local air districts have participated. In sum, CCA and its community partners have a close, respectful, and longstanding professional working relationship with the EPA, CARB, and local air districts throughout California.

Funding Agency	Grant Program	Award Amount	Grant Duration	Reporting Frequency
CARB	Community Air Grant Program	\$500,000	2018 - 2021	Quarterly
CalEPA	EJ Small Grants Program	\$50,000	2020 - 2021	Bi-Annually
CARB	Community Air Grant Program	\$297,220	2020 - 2023	Quarterly
CARB	Community Air Grant Program	\$299,672	2022 - 2025	Bi-Annually

B. Reporting Requirements

CCA's Deputy Director of Programs has developed a system for efficiently tracking projects, managing subcontractors, and providing detailed progress reports to funders on time. If funded, CCA and subcontractors, will follow a similar model to the ones CCA have used in the past to track and provide written reports of project activities. Subcontractors will enter into written agreements with CCA prior to incurring project expenses. These agreements will identify responsibilities and reporting requirements. CCA travel costs will be recorded and reported in a manner consistent with CCA's personnel manual. Independent financial auditors will review CCA financial records at the conclusion of each fiscal year.

C. Staff Expertise

Our staff and project partners have extensive experience in the field of air quality monitoring and educational outreach/awareness. Main project staff's short bios are below. Full resumes for each staff member are included in [Appendix C](#).

- **Joseph K. Lyou, Ph.D.,** *President and CEO, Coalition for Clean Air*

In January 2020, Dr. Lyou was appointed to serve on the California Transportation Commission. He also served on the SCAQMD Governing Board from 2007 to 2019. Prior to his work at CCA, Dr. Lyou founded the California Environmental Rights Alliance, a public interest group dedicated to working on environmental justice issues. Dr. Lyou has spent 30 years helping community groups and concerned individuals with environmental protection issues, including air and water pollution, the clean-up of contaminated sites, and environmental justice.

- **Jennifer A. Lentz, Ph.D.,** *Deputy Director of Programs, Coalition for Clean Air*

Dr. Lentz manages a statewide air quality monitoring network and works with community members and educators to improve their awareness of the connection between air quality and health. Dr. Lentz serves on LA County's Sensitive Ecological Areas Technical Advisory Committee (SEATAC), and co-authored climate resilience plans for two Southern California communities (AOP 2015, CCA 2021).

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- **Timothy S. Dye, CCM, *President and Owner, TD Environmental Services***

Mr. Dye has over 30 years of experience in air quality monitoring, data management, and public communication. A visionary and entrepreneur, he has created air quality applications that vividly communicate air quality conditions. Tim works in many areas of air quality: 1) low-cost, air quality sensor evaluation and deployment, 2) air quality monitoring, 3) data management and analytics, and 4) citizen and community science applications. He's an avid Python programmer and has recently developed software to process data collected by mobile monitors. He is regularly sought out for his wide-ranging and strategic insights on air quality sensing by foundations, NGOs, government, industry, and companies worldwide.

- **Story Schwantes, *Air Quality Scientist, TD Environmental Services***

Ms. Schwantes is an air quality scientist with experience in STEM education, effective multimedia communication, and municipal sustainability initiatives. She has experience researching Colorado Front Range airborne heavy metals, working as an associate TV producer for Rocky Mountain PBS, and developing environmental justice curriculum for the Science Museum of Minnesota. Most recently, as a Sustainability Specialist for the City of Golden Valley, MN, Story worked to bridge gaps in communication between regional government and local community, helping guide municipal environmental initiatives. She now utilizes these skills in her work with TDE, taking on communication, technical, and project management responsibilities, and working to create effective air monitoring networks designed around community data access and action.

- **Glory Dolphin Hammes, CIE, CAFS, *Executive Director, IQAir Foundation***

Ms. Hammes' passion for environmental protection began in her formative years through beach cleanups in Santa Monica. She majored in business administration at the University of Southern California Marshall School of Business. Her entrepreneurial spirit was refined at the Lloyd Greif Center for Entrepreneurial Studies. She is an expert in environmental control and is a Certified Indoor Environmentalist and licensed HVAC contractor specializing in air quality. Ms. Hammes' passion to ensure everyone has access to breathe clean air inspired the launch of the IQAir Foundation. The initiative works to provide air quality monitoring and air filtration technology in schools and organizations located in the most polluted communities in the U.S.

- **Nancy Dinella, *Community Outreach Director, IQAir Foundation***

Ms. Dinella serves as the Community Outreach Director for the IQAir Foundation, which partners with community groups, environmental justice groups to bring high efficiency air filtration and air quality monitoring to schools in highly polluted areas. In her leisure time, Nancy has volunteered with Habitat for Humanity, YMCA and raising funds for awareness of health benefits to improve detection of Breast Cancer research, Juvenile Diabetes, and the American Heart Association. Nancy attended Central Michigan University and William Paterson University.

SECTION 7. BUDGET

A. Budget Detail

The budget outlined on the following page is designed to ensure that the air sensor data collected during this project is used and actionable for interventions to reduce exposure to air pollution, and improve the health and wellbeing of the disadvantaged communities served by the five partner YMCA locations. It includes labor, air monitoring equipment, air filtration, materials, and indirect changes.

Project Narrative

LINE ITEM AND ITEMIZED COST					EPA FUNDS
CCA's Personnel	Rate (\$/hr)	Hours	Budget per YMCA	# of YMCAs	Sub-Total
CEO & President	\$60	7.2	\$433	5	\$2,164
Director of Development	\$47	7.2	\$339	5	\$1,697
Deputy Director of Programs	\$34	180	\$6,057	5	\$30,285
Communications & Outreach Associate	\$28	72	\$2,016	5	\$10,080
Website & Graphics Manager	\$27	36	\$972	5	\$4,860
Office Manager	\$27	36	\$969	5	\$4,846
TOTAL PERSONNEL			\$10,786	5	\$53,931
Fringe Benefits*					Sub-Total
28% of Salary and Wages @ 28% x Total Personnel					\$15,101
			TOTAL FRINGE BENEFITS		\$15,101
Travel (Mileage for CCA Staff)	Rate (\$/mi)	Total (mi)	# of Trips	# of YMCAs	Sub-Total
YMCA of West San Gabriel Valley	\$0.585	38.5	3	1	\$68
Diamond Bar / Walnut YMCA	\$0.585	64.0	3	1	\$112
Montebello Family YMCA	\$0.585	33.6	3	1	\$59
Southeast-Rio Vista YMCA	\$0.585	23.1	3	1	\$41
Fairfield Family Branch YMCA – <i>Tentative</i>	\$0.585	2.4	3	1	\$4
			TOTAL TRAVEL		\$284
Equipment					Sub-Total
Equipment is included in the quotes for the Contractual work from IQAir and TDE					\$0
			TOTAL EQUIPMENT		\$0
Supplies			Budget per YMCA	# of YMCAs	Sub-Total
Outreach Materials and Supplies			\$500	5	\$2,500
			TOTAL SUPPLIES		\$2,500
Contractual					
TD Environmental (TDE) Support Services Contract			Budget per YMCA	# of YMCAs	Sub-Total
Tailored awareness, outreach, education for each YMCA for 3 years			\$20,000	5	\$100,000
Black Carbon Instruments, Installation, and Supplies (3 years)			\$21,037	2	\$42,074
			TDE Subtotal	5	\$142,074
IQAir Foundation (IQAir) Support Services Contract			Budget per YMCA	# of YMCAs	Sub-Total
YMCA of West San Gabriel Valley			\$ 28,279	1	\$ 28,279
Diamond Bar / Walnut YMCA			\$ 23,283	1	\$ 23,283
Montebello Family YMCA			\$ 32,183	1	\$ 32,183
Southeast-Rio Vista YMCA			\$ 32,178	1	\$ 32,178
Fairfield Family Branch YMCA – <i>Tentative, Pending Confirmation</i>			\$ 30,000	1	\$ 30,000
			IQAir Subtotal	5	\$ 145,923
Report Writer	Rate (\$/hr)	Hours			Sub-Total
Contracted Report Writer	\$ 70	60			\$ 4,200
			Report Writer Subtotal		\$ 4,200
			TOTAL CONTRACTUAL		\$292,197
Other			Budget per YMCA	# of YMCAs	Sub-Total
Printing Outreach Materials			\$531	5	\$2,654
Subawards -- Participating YMCA Locations			\$10,000	5	\$50,000
TOTAL OTHER			\$10,531	5	\$52,654
Total Direct Charges¹⁰					\$416,666
Indirect Charges					Sub-Total
Federal Indirect Cost Rate (20%) x Total Direct Costs = Indirect Costs					\$83,333
Total Indirect Charges					\$83,333
TOTAL PROJECT COST					\$500,000

* CCA's Fringe Benefits rate of 28% has been determined by analyzing the cost of CCA's employee Health Insurance (medical, dental, and visual), Cost of Leave, Life Insurance, and 401(k) contributions over the past five years

B. Reasonableness of Costs

YMCAs are a long-standing community hub for various activities with a strong focus on youth and family health and wellbeing, making them a perfect partner in air quality monitoring outreach, awareness, and interventions. This section focuses on explaining the budget and describing the major budget components and our rationale.

A couple of overarching themes were used to develop this project:

1. We want to ensure that the air sensor data are used and actionable for interventions to reduce exposure to air pollution and heightened interest in advocating for cleaner air.
2. Based on our many past interactions with community groups and schools, it takes substantial time and many meetings to make things happen. We've budgeted the time we project will be necessary to fully implement the collaborative pieces of the project.
3. Each YMCA will likely have different needs, constraints, and opportunities, so our approach includes more time and awareness for engagement with each YMCA to foster their participation and meet their specific needs.
4. Based on our experience with past outreach projects, the equipment budget should be substantially less than the outreach/awareness budget – this project meets this.

The project budget includes the following items:

- **Management Activities** (10% of the budget)

Contact management by CCA consists of the project oversight, reporting, project monitoring, subcontracting. Sustainability planning by CCA and subcontractors will work with each YMCA to identify a way to continue monitoring and air purification after the EPA funding period.

- **Equipment** (17% of the budget)

- Air sensors and instruments include one (1) outdoor air sensor and three (3) indoor air sensors at each YMCA for 20 air sensors that measure PM_{2.5} and CO₂. This includes three years of installation, operations, repairs, data management, data communications, and replacement. (\$9K/YMCA for a total of \$45K for five YMCAs)
- Black Carbon (BC) instrument to be procured and installed at two YMCA for three years. This includes supplies and calibration equipment. (\$42K for two devices)
- Data management using the IQAir cloud data system.
- The AirVisual app, which is a free smartphone app that provides real-time data for each YMCA and its community members, and is available in 16 languages.
- Supplies would include outreach materials and a monitor to view real-time data from the air sensors within each YMCA.

- **Interventions** (46% of the budget)

These actions are a critical part of our projects to help staff, adults, and youth at YMCAs fully understand and use the air quality data to take action to reduce exposure to air pollution. These interventions occur from two efforts 1) awareness activities include working with each YMCA to provide training, factsheet, educational materials, youth engagement, and more. 2) The ventilation intervention will include HVCA modification, services, and support for three years.

Project Narrative

- **YMCA direct funding** (10% of the budget)

Each YMCA would receive \$10,000 for contract support that provides funds for expenses and compensates for activities and volunteer staff participating in training and outreach.

- **Indirect cost** (17% of the budget)

For this application CCA uses the federally negotiated indirect cost rate of 20% of the total direct project costs. CCA will use the indirect cost funds to cover administrative costs which include prorated amounts for administrative and professional services (accountant, bookkeeper, payroll services, information technology, and auditor), office rent, building repairs and maintenance, office equipment leases, utilities, liability insurance, and other overhead expenses.

CCA will follow the EPA's Best Practice Guide for Procuring Services, Supplies, and Equipment Under EPA Assistance Agreements, EPA's Subaward Policy (GPI) 16-01, RAIN-2018-G05-R1, "EPA Guidance on Participant Support Costs."

C. Expenditure of Awarded Funds

The Coalition for Clean Air is adept at managing, reporting and tracking government grants in an efficient and transparent manner. Over the past two years, we've managed more than 10 of these grants at both the State and local levels. Our transparency score on Charity Navigator is 86, providing us with a "give with confidence" rating. We also make our annual audit publicly available.

SECTION 8. WORKS CITED

AOP (2015) City of Long Beach Climate Resiliency Assessment Report. Prepared by the Aquarium of the Pacific (AOP), for the City of Long Beach, California. 89pp ([link](#))

CCA (2021) Maywood Community Action Plan. Prepared by the Coalition for Clean Air (CCA) for the California Air Resources Board (CARB) and the California Environmental Protection Agency (CalEPA). 51pp. ([link](#))

Njoku AU (2021) COVID-19 and environmental racism: Challenges and Recommendations. *Eur. J. Environ. Public Health* 5(2021): em0079.

Ramierz R (2021) There's a clear fix to helping Black communities fight pollution. Vox article posted Feb. 26, 2021. ([link](#))

Zhong R and Popovich N (2022) How Air Pollution Across America Reflects Racist Policy From the 1930s. New York Times article posted on March 9, 2022. ([link](#))

SECTION 9. OPTIONAL ATTACHMENTS

Appendix A.	Project Locations (Link to Document)
Appendix B.	Quality Assurance Statement (Link to Document)
Appendix C.	Resumes of Key Project Staff (Link to Document)
Appendix D.	Letters of Support and Commitment from Project Partners (Link to Document)
Appendix E.	Proof of Nonprofit Status (Link to Document)
Appendix F.	CCA's Board of Directors (Link to Document)

Manifest for Grant Application # GRANT13580410

Grant Application XML file (total 1):

1. GrantApplication.xml. (size 29695 bytes)

Forms Included in Zip File(total 6):

1. Form ProjectNarrativeAttachments_1_2-V1.2.pdf (size 16035 bytes)

2. Form SF424_3_0-V3.0.pdf (size 24306 bytes)

3. Form SF424A-V1.0.pdf (size 23395 bytes)

4. Form EPA4700_4_3_0-V3.0.pdf (size 22786 bytes)

5. Form OtherNarrativeAttachments_1_2-V1.2.pdf (size 16020 bytes)

6. Form EPA_KeyContacts_2_0-V2.0.pdf (size 37453 bytes)

Attachments Included in Zip File (total 7):

1. SF424_3_0 SF424_3_0-AdditionalProjectTitle-1238-e.
2022.03.25_AirAware_YMCA_ProjectNarrative_FINAL.pdf application/pdf (size 379040 bytes)

2. SF424_3_0 SF424_3_0-AdditionalProjectTitle-1239-f.
2022.03.25_AirAware_YMCA_Appendices_FINAL.pdf application/pdf (size 2891332 bytes)

3. SF424_3_0 SF424_3_0-AdditionalProjectTitle-1237-d. EPA_5700_54-2_FINAL.pdf
application/pdf (size 195712 bytes)

4. SF424_3_0 SF424_3_0-1240-a. SF-424_2_1-v2.1_FINAL_16.pdf application/pdf (size 155720 bytes)

5. SF424_3_0 SF424_3_0-1236-a. SF-424_2_1-v2.1_FINAL_14.pdf application/pdf (size 384511 bytes)

6. OtherNarrativeAttachments_1_2 OtherNarrativeAttachments_1_2-Attachments-1235-
2022.03.25_AirAware_YMCA_Appendices_FINAL.pdf application/pdf (size 2603834 bytes)

7. ProjectNarrativeAttachments_1_2 ProjectNarrativeAttachments_1_2-Attachments-1234-
2022.03.25_AirAware_YMCA_ProjectNarrative_FINAL.pdf application/pdf (size 379057 bytes)

AIRAWARE

EMPOWERING YMCA COMMUNITIES TO USE REAL-TIME DATA AND AWARENESS TO REDUCE POLLUTION EXPOSURE

APPENDICES

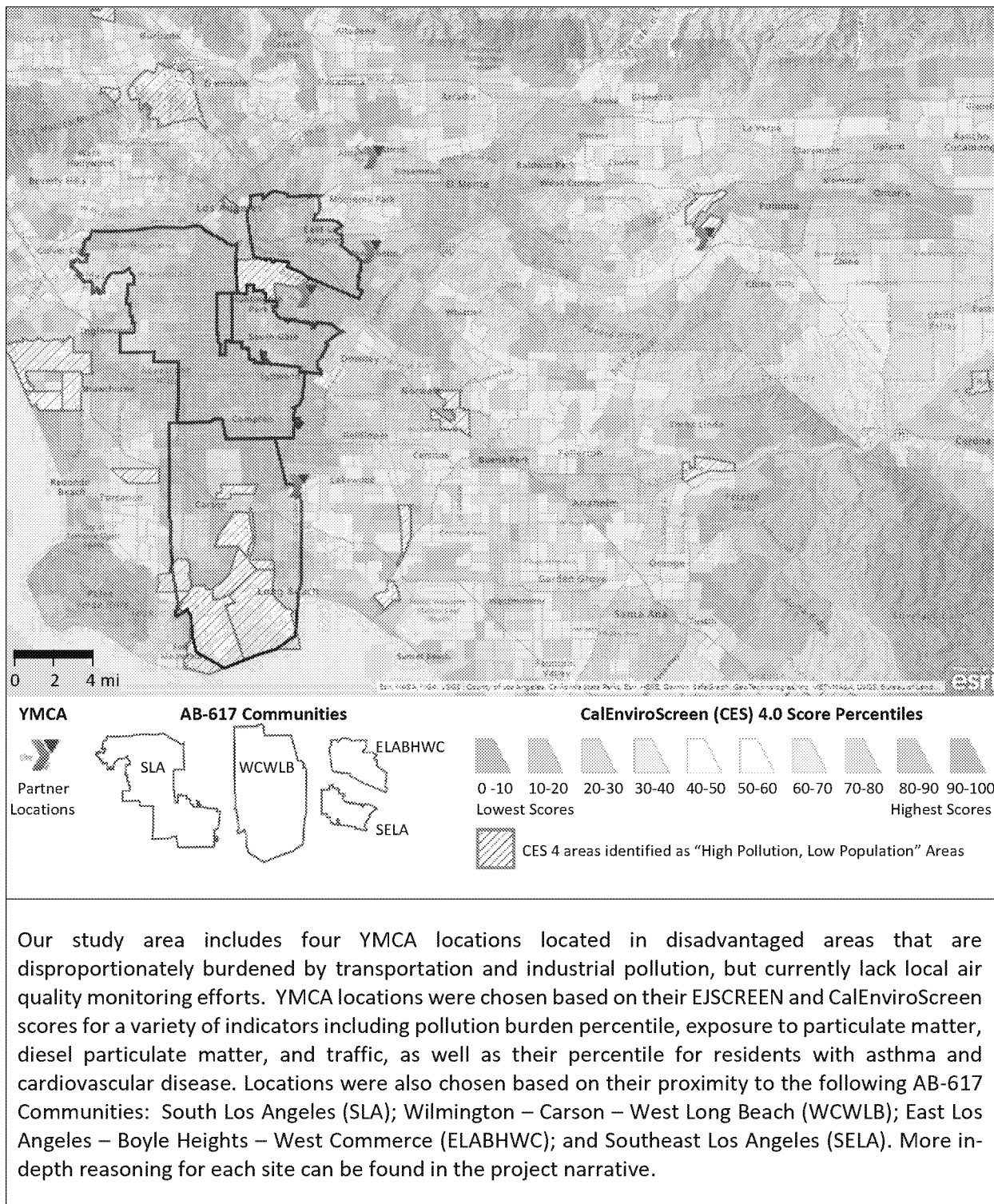
APPENDIX A	PROJECT LOCATIONS
APPENDIX B	QUALITY ASSURANCE STATEMENT
APPENDIX C	RESUMES OF KEY PROJECT STAFF
APPENDIX D	LETTERS OF SUPPORT AND COMMITMENT FROM PROJECT PARTNERS
APPENDIX E	PROOF OF NONPROFIT STATUS

EPA-OAR-OAQPS-22-01

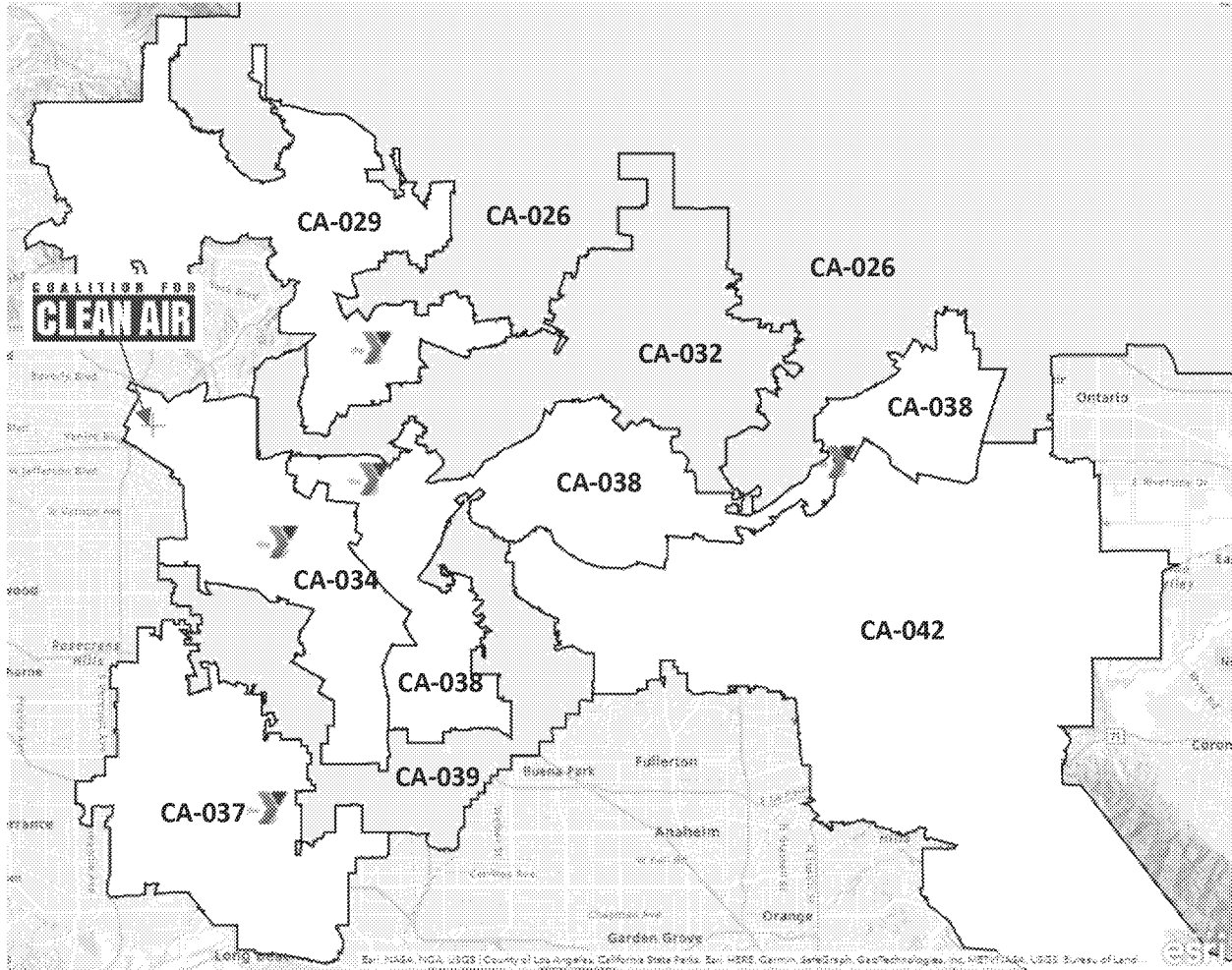
Enhanced Air Quality Monitoring for Communities

APPENDIX A

PROJECT LOCATION



Congressional Districts



The Applicant (Coalition for Clean Air) is located in Congressional District **CA-034**.

Our YMCA Project Locations are located in the following Congressional Districts: **CA-029, CA-034, CA-037, CA-038, and CA-042**, while also servicing the communities of **CA-026, CA-032, and CA-039**.

APPENDIX B

QUALITY ASSURANCE STATEMENT

Appendix A. Quality Assurance Statement

The Quality Assurance and Quality Control approach will involve a QA/QC lead for the project and QA/QC practices to ensure complete, timely, and accurate data collection for all air quality instruments. Our team is very familiar with Quality Assurance Project Plans (QAPP) and will develop a QAPP before the award of an assistance agreement.

Responsibility for quality will use the AirAware team members discussed in **Section 6C**. CCA is the overall project lead and Tim Dye at TDE will be the quality assurance lead. He will be responsible for instilling methods and procedures that ensure high-quality data for these YMCAs. Tim has over 30 years of air monitoring experience and has developed QA procedures, QAPPs, and QA guidance for air quality and meteorological monitoring for the U.S. EPA, state/local air quality agencies, and NGOs.

Our general approach for conducting quality assurance includes the following activities:

- Selecting a quality sensor, IQAir's AirVisual Pro, that has received favorable evaluations from many organizations, including AQSpec (2022), Zamora et al. (2020), and Airparif (AirLab 2019).
- Meeting EPA's new performance targets for Fine Particulate Matter (PM_{2.5}) air sensors (Duvall et al. 2021) for Non-regulatory Supplemental and Informational Monitoring (NSIM) applications
- Collocating all sensors at the beginning of the study and comparing them to nearby reference measurements for PM_{2.5} and Black Carbon (BC)
- Applying data correction algorithms for the PM_{2.5} sensor data using IQAir's cloud system
- Conducting maintenance on a monthly and annual based to check the integrity of each sensor
- Conducting daily and monthly data reviews of the data to detect any problems early and take appropriate action
- Using Standard Operating Procedures (SOPs) for routine tasks allows anyone on the AirAware team or staff at each YMCA to maintain the equipment

Data quality objectives for the measurements includes:

- **Fine Particulate Matter** (PM_{2.5}) sampling will be measured using IQAir AirVisual Pro monitors (IQAir 2022). Each monitor contains a Plantower air sensor component widely used and characterized by many organizations, including the AQ-SPEC program.
 - The data quality objectives are based on EPA's performance target for PM_{2.5} sensors (Duvall et al. 2021):
 - Bias Slope of 1.0 ± 0.35 and an Intercept (b) of $-5 \leq b \leq 5 \mu\text{g}/\text{m}^3$
 - Linearity Coefficient of Determination (R^2) of greater than 0.70
 - Normalized Root Mean Square Error (NRMSE) less than 30%
 - Data completeness greater than 90%
 - We will compare the outdoor sensors with the nearest FEM reference instrument. Although not colocated, we believe that the comparison will be sufficient to identify and repair any PM_{2.5} sensors. Indoors, we will compare the PM_{2.5} sensors annually to compute precision by collocating the sensors for a 48-hour period.

- **Black Carbon (BC)** - The microAeth® MA350 is a real-time 5-wavelength UV-VIS-IR Black Carbon monitor housed in an outdoor-rated case with an 85-sampling location automatic filter tape advance system for 3-12 months of continuous measurements. The EPA has not designated a FEM for the real-time collection of BC. No method currently exists for directly calibrating an aethalometer or establishing a certified standard. We will conduct a sampler flow check ($\pm 10\%$ of design) and a zero-check using HEPA filter ($0 \pm 0.1 \mu\text{g}/\text{m}^3$) every quarter to ensure high-quality data. Annual, we will send the MA350 to the manufacturer for an instrument check-up. Data completeness criteria will be greater than 90%.
- **Carbon Dioxide (CO₂)** – The Airvisual Pro Indoor uses a non-dispersive infrared sensor to measure CO₂. To ensure quality, we plan to collocate the sensors at the beginning of the study and then collocate them indoors on an annual basis for a 48-hour period. Precision, as measured by NRMSE, would be less than 30%. Data completeness criteria will be greater than 90%.

Works Cited

AirLab (2019) Microsensors Challenge 2019: announcement of the results. AirLab brochure, 83pp. ([link](#))

AQSPEC (2022) IQAir – AirVisual Pro Sensor Detail. Air Quality Sensor Performance Evaluation Center (AQ-SPEC). South Coast Air Quality Management District (SCAQMD) website. ([link](#))

Duvall RA, Clements A, Hagler G, Kamal A, Kilaru V, Goodman L, Frederick S, Johnson Barkjohn K, VonWald I, Greene D, Dye T (2021) Performance Testing Protocols, Metrics, and Target Values for Fine Particulate Matter Air Sensors: Use in Ambient, Outdoor, Fixed Site, Non-Regulatory Supplemental and Informational Monitoring Applications. U.S. EPA Office of Research and Development, Washington, DC, EPA/600/R-20/280. ([link](#))

IQAir (2022) AirVisual Pro Product Setup. IQAir Guides and Manuals website ([link](#))

Zamora ML, Rice J, and Koehler K (2020) One Year Evaluation of Three Low-Cost PM_{2.5} Monitors. *Atmospheric Environment* (Oxford, England: 1994) 235, 117615. ([link](#))

APPENDIX C

RESUMES OF KEY PROJECT STAFF

JOSEPH K. LYOU, PH.D.

NON-PROFIT EXECUTIVE

Ex. 6 Personal Privacy (PP)

Profile

Experienced non-profit management executive dedicated to protecting public health, improving air quality, and preventing climate change. Widely recognized leader in California's efforts to achieve environmental justice. Expert advocate who has worked successfully with elected officials, regulators, scientists, businesses, and community members to achieve policy objectives.

Experience

President & CEO, Coalition for Clean Air, September 2010 to present

Commissioner (Speaker of the Assembly Appointee), California Transportation Commission, January 2020 to present

Governor's Appointee, South Coast Air Quality Management District Governing Board, June 2007 to March 2019

Executive Director, California Environmental Rights Alliance, January 2003 to August 2010

Interim Executive Director, California League of Conservation Voters Education Fund, January 2002 to January 2003 (Director of Programs, April 2000 to January 2002)

Executive Director, Committee to Bridge the Gap, August 1991 to March 2000 (Associate Director, July 1990 to August 1991)

Select Professional Affiliations

Chair, Road Charge Technical Advisory Committee, California Transportation Commission, August 2020 to present

Member, National Center for Sustainable Transportation Leadership Council, July 2020 to present

Member, San Pedro Bay Ports Sustainable Supply Chain Advisory Committee (formerly Port of Los Angeles Sustainable Freight Advisory Group), June 2016 to present

Chair, South Coast Air Quality Management District Environmental Justice Advisory Group, May 2009 to March 2019

Education

Doctorate of Philosophy in Social Psychology, University of California at Santa Cruz, June 1990

Master of Science in Psychology, University of California at Santa Cruz, June 1986

Bachelor of Arts in Psychology, *summa cum laude*, California State University Northridge, January 1983

Awards & Honors

California Safe Schools, Earth Day Hero, 2019

Stanton Fellowship, Durfee Foundation, 2014-2015

RadTech President's Award for Vision & Leadership in Advancing UV/Electron Beam Technology, 2013

Clean Air Leadership Award, Coalition for Clean Air, 2005

Environmental Justice Award, California Communities Against Toxics, 2003

Certifications

Cardiopulmonary resuscitation (CPR), March 2021

Climate Reality Project, Climate Reality Leadership Corps Training, August 2018


Jennifer A. Lentz, Ph.D.

Accomplished Professional Dedicated to Creating Climate Resilient Communities and Ecosystems

CONTACT INFO

 Jenny@CCAir.org

Ex. 6 Personal Privacy (PP)

 660 S Figueroa Street, Suite #1140
Los Angeles, CA 90017

 <http://www.JenniferALentz.info>

Ex. 6 Personal Privacy (PP)

AREAS OF EXPERTISE

Air Quality Monitoring Programs
Environmental Epidemiology
Resilience & Sustainability Strategies
Climate Change Impacts
Communicating Scientific Information
Community Outreach
Green Building Practices & Principles
Citizen/Community Science Programs
Environmental Ecology
Oceanography & Coastal Sciences
Spatial Epidemiology

ADDITIONAL INTERESTS

Energy Efficiency & Climate-Proofing
Stormwater Management
Improving Air Quality
Water Conservation
Urban & Community Planning
Equity & Environmental Justice
Reducing Urban Heat Island Effect
Transportation & Mass Transit
Emergency Preparedness
Home & Building Improvements

KEY SKILLS

Program Management
Critical Thinking & Problem-Solving
Editing & Attention to Detail
Organization & Strategic Planning
Reports & Presentations
Research & Data Analysis
Collaboration & Team Work
Staff Training & Development
Leadership

PROFESSIONAL EXPERIENCE

Deputy Director of Programs (2022 – Present)

Coalition for Clean Air (CCA), Los Angeles, CA

Manage CCA's Community Learning Enhances Air Resources (CLEAR) programs which aims to make the invisible visible, giving us the power to know what is in the air we breathe and empower our communities to take action to reduce their exposure to unhealthy air.

Program Manager (2020 – 2021)

Coalition for Clean Air (CCA), Los Angeles, CA

Education Coordinator – for Climate Resilience & Community Science Programs (2015 – 2020)

Aquarium of the Pacific (AOP), Long Beach, CA

Managed their Climate Resilient Outreach Program, Community (Citizen) Science Programs, and organized several annual events (including their annual Citizen Science for Conservation in Southern California Symposium, Reuse-A-Palooza event, 2-day Earth Day Festival and E-Waste drives). Developed static and interactive educational materials that use GIS to connect people to science. Online examples of this work include the Aquarium's award-winning story maps. One of the lead authors of the *City of Long Beach Climate Resiliency Assessment Report* commissioned by Mayor Garcia during his 2015 State of the City address.

Education Specialist (2013 – 2015) and Marine Science Fellow (Apr. – Sept. 2013)

Aquarium of the Pacific, Long Beach, CA

Taught K-12 classroom programs, interpreted with guests, performed informational "shows" at various exhibits, trained staff on doing shows, and developed exhibit content.

GIS Facilitator (2010 – 2012)

Louisiana State University (LSU), Baton Rouge, LA

Created an interactive, map-based website linked to a geospatial database for all of LSU's School of the Coast and Environment's research, & produced figures for publication.

CERTIFICATIONS AND TRAININGS

EcoDistricts Accredited Professional (December 29, 2019)

This credential demonstrates a commitment to sustainable, equitable neighborhoods that meet the EcoDistricts Certified standard for urban and community development that puts equity, resilience, and climate protection at the center of all decisions

Climate Change Communication, Science, & Action (October 15, 2019)

6-week course offered by the Cornell University Civic Ecology Lab and the Cornell Institute for Climate Smart Solutions (CICSS) and accredited by edX Edge and CornellX

U.S. Public Policy: Social, Economic, & Foreign Policies (August 19, 2019)

6-week course on "the driving forces & persistent tendencies of American politics." Accredited by edX and HarvardX, an online learning initiative of Harvard University

International Climate Change Law & Policy (August 16, 2019)

4-week course on "how to critically access Environmental Economics theory and its application to climate change policy." Accredited by edX and the University of Newcastle

Harwood Public Innovators Virtual Lab (4/01-5/23, 2019)

8-week interactive training on learning what it takes to "Turn Outward" – to use the community, not your conference room, as your reference point for choices and action.

Ecodesign for Cities and Suburbs (May, 2019)

6-week interactive online course on "how ecology can guide urban design to avert environmental disasters and improve people's lives." Accredited through edX and the University of British Columbia.

Climate Reality Leadership Corps (3/14-16, 2019)

Accepted into the *Climate Reality's* 3-day leadership training led by world-renowned scientists and communicators focused on inspiring solutions-based communications.

LEED® Green Associate™ (12/2018 – 12/2020)

Green Business Certification Inc. certifies that the individual has demonstrated knowledge and understanding of green building practices and principles needed to support the use of the LEED® green building program.

Management Development Program – Performance Certificate (2016)

10-week training course by Paul G. Allman, President of *Profession Training Services*

PROFESSIONAL AFFILIATIONS	HONORS AND AWARDS
<p>APPOINTED POSITIONS</p> <p>Association of Energy Engineers (AEE SoCal) Board of Directors (2019-2020) Sustainability Committee Co-Chair (2019-2020)</p> <p>National Adaptation Forum (2021 NAF) Equity & Climate Justice Working Group</p> <p>Significant Ecological Areas Technical Advisory Committee (SEATAC) for LA County. Appointed to a 3yr term (2019 – 2022)</p> <p>Sigma Xi, Inducted by Hamilton College's Chapter</p> <p>GENERAL MEMBERSHIPS</p> <p>American Society of Adaptation Professionals (ASAP)</p> <p>Association of Women in Water, Energy, & Environment (AWWEE)</p> <p>California Water Environment Association (CWEA)</p> <p>EcoDistricts</p> <p>LA Regional Collaborative (LARC) for Climate Action & Sustainability</p> <p>US Green Building Council (USGBC) – LA Area Chapter & Long Beach Branch, Member & Volunteer</p>	<p>ESRI's "Special Achievement in GIS (SAG) Award" (2015) "This award is given to user sites around the world to recognize outstanding work with GIS technology. Your organization stood out from more than 100,000 others." - <i>ESRI</i> Award letter</p> <p>ESRI's Story Map Award (2016 and 2014) Southern California Steelhead Story Map received 1st Place at <i>ESRI's</i> 2014 Ocean GIS Forum and 3rd Place at <i>ESRI's</i> 2016 User Conference</p> <p>CEGO Leadership and Service Award (2010 – 2011) For "outstanding leadership, initiative, and dedication in service to CEGO"</p> <p>Tom W. Dutton Service Award (2010 – 2011) "For outstanding service to the University community through participation and leadership in community service activities while attending LSU." – Award Letter</p> <p>Embassy of the Federal Republic of Germany's Certificate of Appreciation (2010) "For outstanding contribution to the Transatlantic Climate Bridge initiative and dedication to raising awareness about energy conservation and protecting our planet on LSU's campus"</p>
SERVICE	INVITED PRESENTATIONS
<p>USGBC-LA Legacy Project, Volunteer 2019</p> <p>IDigLB Tree Planting, Volunteer 2017-2018</p> <p>Science Fair, Judge 2006 – 2017</p> <p>Ropes Course, Facilitator 2000 – 2011</p>	<p>Lentz JA (2020) Creating a Climate Resilient California using Nature-based Solutions (Keynote). California Garden Club, Inc (CGCI)'s 2020 Winter Board Meeting on February 4, 2020, in Long Beach, CA. National Garden Club (NGC) Tri-Refresher credit available to presentation attendees.</p> <p>Lentz JA (2020) Sustainability & Resilience at the Aquarium of the Pacific (Keynote). California Water Environment Association (CWEA)'s 47th Annual Pretreatment, Pollution Prevention, & Stormwater (P3S) Conference, on January 28, 2020 in Long Beach, CA. Attendees earned 1 CWEA Contact Hour for attending this presentation.</p> <p>Lentz JA (2019) Creating a Climate Resilient Long Beach. Invited presentation and panelist at the Ocean Resiliency Gala – A Call to Action event, on November 12, 2019 in Long Beach, CA.</p> <p>Lentz JA (2019) One of three local experts invited to panelists for the post-film discussion following the screening of "The Human Element." A Breathe LA California Clean Air Day event, held at the Laemmle Monica Film Center, on October 3, 2019 in Santa Monica, CA.</p> <p>Lentz JA (2019) Sustainability & Resilience at the Aquarium of the Pacific. Energy Coalition's "Resiliency & Energy for Public Agencies" event on August 29, 2019 in Long Beach, CA.</p> <p>Lentz JA (2019) Urban Growth and Building for People. Panel Discussion, as part of the First Annual Long Beach Architecture Week. Studio One Eleven, Long Beach, CA. June 5, 2019.</p> <p>Lentz JA (2019) Aquarium of the Pacific's Climate Resilience Work. Presentation requested by and for the Long Beach Sustainable City Commission. May 23, 2019.</p> <p>Lentz JA (2019) Climate Impacts in Long Beach. Climate Solutions for Long Beach. Presentations and Panel Discussion at the Extreme Heat in Long Beach, Staying Safe & Solving Climate Change, City of Long Beach CAAP Event. March 30, 2019.</p> <p>Lentz JA (2018) Current & Future Climate Impacts for the City of Long Beach. CSULB's Climathon, on October 26, 2018, in Long Beach, CA. Also served as a Judge for the project competition.</p> <p>Lentz JA (2018) Current & Future Climate Impacts for the City of Long Beach. California State University Long Beach (CSULB)'s 2018 Resilience Charrette, on March 2, 2018.</p> <p>Lentz, JA (2016) One of five professionals invited to speak at CSULB's Green Careers Panel.</p> <p>Lentz JA (2015) Coral Health – Understanding the Animal, Ecosystem, and Stressors from a Spatial Point of View. American Cetacean Society's Orange County Chapter (ACS-OC).</p>
TECHNICAL SKILLS	EDUCATION
<p>GIS and Spatial Analysis Proficient at <i>ArcGIS 9-10x</i> and <i>ArcGIS Online</i> Familiar with <i>ArcView 3x</i> and <i>ArcGIS Pro</i> Proficient at <i>Google Earth</i> and Familiar with <i>Google APIs</i></p> <p>Graphic Design Proficient at <i>Adobe Photoshop</i></p> <p>Software Platforms <i>Microsoft Office Suite</i> L Expert at <i>Word</i> and <i>PowerPoint</i> L Highly-Proficient at <i>Excel</i> and <i>Outlook</i> L Proficient at <i>Access</i>, <i>Publisher</i>, <i>SharePoint</i> Proficient with online storage platforms, collaborative project boards like <i>Trello</i>, communications platforms like <i>Mailchimp</i>, citation software like <i>Endnote</i>, and various social media platforms</p> <p>Web Design Proficient at web design and some coding</p>	<p>Ph.D. from Louisiana State University, in Baton Rouge, LA (2005 – 2012) Major: Department of Oceanography and Coastal Sciences Minor: Department of Geography and Anthropology (with a GIS concentration) <u>Developing A Geospatial Protocol For Coral Epizootiology</u>. LSU Doctoral Dissertation. 321 pp. Board of Regents Graduate Fellowship (2005-2009)</p> <p>B.A. from Hamilton College, in Clinton, NY (2001 – 2005) Major: Interdisciplinary Concentration (in Environmental Science); Minor: Studio Art Graduated <i>Cum Laude</i> with an Interdisciplinary Concentration Honor & Elihu Root Fellowship (\$5,000) Alexander Hamilton 100 Best Writers Award (2002, 2003)</p>

Profile

Tim Dye is a visionary and entrepreneur with over 30 years of experience creating innovative programs for air quality applications. In 2017, Tim founded TD Environmental Services (TDE), which specializes in collecting and analyzing data using low- and mid-cost air sensors to provide insights about the air we breathe. At TDE, he combines novel technologies and sound science to work on practical and cutting-edge air quality applications. He is a widely recognized leader in air quality sensor technologies for environmental applications and respected as an independent voice in the air sensor community. A visionary and an entrepreneur, he has created many operational air quality programs that provide custom and routine air quality services.

Before founding TDE, Tim held a number of executive and management positions at Sonoma Technology, where he led teams to develop creative, custom programs focused on air sensors, data management systems (AirNow.gov), data analysis, and public education. At TDE, Tim uses his creativity and deep experience to empower organizations to use air sensors to collect high-quality data for a range of applications. His knowledge of the air sensors ecosystem, companies, and experts worldwide allows him to create the best solutions for his clients, including foundations, community groups, private companies, and government organizations.

Air Sensors

Mr. Dye is a widely recognized leader in air sensor and Internet of Things (IoT) technologies for environmental applications. For ten years, he has led a broad range of efforts to evaluate and test air sensors to understand how organizations could most effectively employ this new and rapidly changing technology. Mr. Dye built air quality sensing systems for fixed and mobile applications, wrote the U.S. EPA's guidebook on air quality sensors, conducted studies to evaluate and quantify sensor performance, and developed analytics to create information from sensor data. For example, Tim guided the World Resource Institute staff in São Paulo, Brazil, through all aspects of using low-cost air sensors to address pollution from transportation sources. In India, Tim worked with the Shakti Foundation to guide their efforts to install 250 air sensors across the country. Both of these capacity-building projects cover all aspects of using sensors, including setting objectives, developing data quality objectives, selecting and deploying sensors, managing and analyzing data, and more. While completing many air monitoring studies, he has addressed a range of air quality challenges with low-cost sensors: residential wood smoke, wildfire smoke, agricultural dust, and coal dust. Community groups, government, industry, and companies worldwide seek Tim's experience and strategic insights on air quality sensing.

Training and Education

Tim has a long history of developing innovative products and services. Examples include an infographic, "4 questions to ask when buying an air quality sensor" and SmogCity2, an online game that simulates the cause-and-effect relationships between air quality and weather, emissions, and population. He is currently developing AirActions, an educational program that uses new technologies (including air sensors) to educate students and take actions to improve air quality.

Data Management and Analysis

For over two decades, Tim has specialized in designing and developing powerful information systems for air quality applications and public communication. He is an internationally recognized leader in developing air quality information systems like the EPA's AirNow program. Currently, Tim is leading an effort to create a data management system to ingest, process, and display air quality sensors data for the City of Denver and other clients to provide real-time air quality information to schools and decision-makers.

Education and Certifications

MS, Meteorology, Pennsylvania State University

Certified Consulting Meteorologist (#619)

BS, Meteorology, Millersville University of Pennsylvania

Profile

Story Schwantes joined TD Environmental Services with experience and a background in air quality, STEM education, and multimedia communication. She began working for TD Environmental Services in the Spring of 2020 and continues to take on technical and project management responsibilities.

Air Quality & Sustainability

Story worked as part of a team researching Colorado Front Range air quality issues, utilizing her creativity, detail-oriented work style, and communication ability on several projects. These projects included analyzing coal-fired power plant emissions, tracking regional fate and transport of airborne heavy metals in the southwestern US, and deploying an experimental high-precision oxidized mercury analyzer and calibrator. She co-authored a paper on the coal-fired power plant research and has presented the findings at conferences.

Recently, as an AmeriCorps member, Story served as the Sustainability Specialist for the City of Golden Valley, MN. She focused on environmental issues, including electric vehicle proliferation, waste management, building energy efficiency, and renewable energy availability and use. A few of her larger projects included bringing curbside organics recycling pickup to the city and developing and implementing a city-wide energy efficiency and emissions reduction plan. She worked to identify and assist households having difficulties paying their energy bills, serving as a resource for other municipalities seeking a strategic method to support this segment of their populations. Her natural ability to bring groups together helped guide municipal initiatives, bridging gaps in communication and action between regional government, local businesses, non-profits, schools, and residents.

Training and Education

In Colorado, Story worked with school districts to craft an after-school STEM enrichment program for underserved elementary school students, creating learning modules to expand student understanding of and enthusiasm for scientific concepts. In her work with high school students at the Science Museum of Minnesota, she developed and taught a wide variety of environmental curriculum, from an introduction to geographic information systems (GIS), to units on local environmental justice issues surrounding air quality, water pollution, and equitable energy access.

Film & Communication

Story served as associate producer and content creator for the Rocky Mountain PBS TV series "In Short." Responsibilities included all aspects of production, from principal photography and editing to quality controlling to on-air standards and developing marketing materials. She has also worked with TD Environmental to develop air quality video labs for use in the AirActions middle and high school program. Her film background brings a unique perspective to project ideas and organization.

Education

BA, Environmental Science & Film, Colorado College

Resume

Glory Dolphin Hammes, CIE, CAFS

SUMMARY OF QUALIFICATIONS

- Strong background in Indoor Air Quality (IAQ) with special emphasis on custom air filtration design
- Licensed C-20 HVAC Contractor (under IQAir Clean Air Team Corporation)
- Writer and contributor to several industry publications
- Advisor to the EPA on Indoor Air Quality Best Practices for Multi-Family Dwellings (2004)

EMPLOYMENT

Chief Executive Officer, IQAir North America, Inc.

Since August 2004

Complete P & L responsibility

Responsible for developing and overseeing all training programs

Project Management

Design & Implement Employee Benefit Package

EDUCATION

B.Sc. Degree, May 1996

UNIVERSITY OF SOUTHERN CALIFORNIA (USC)

Los Angeles, California

Business Administration, Emphasis: Entrepreneurship

Associated Arts Degree, December 1993

SANTA MONICA COLLEGE (SMC)

Santa Monica, California

CERTIFICATIONS

Certified Indoor Environmentalist (CIE), 1998

Registered Environmental Assessor (REA), 1998

Certified Air Filtration Specialist (CAFS), 2000

PROFESSIONAL MEMBERSHIPS

American Lung Association, Exclusive Air Cleaning Partner (since 2004)

Indoor Air Quality Association (IAQA)

National Association of Female Executives (NAFE)

REPRESENTATIVE PROJECT EXPERIENCE

AQMD Pilot Study

U.S. Olympic Team Air Purification Equipment Provider – Beijing 2008

Extreme Makeover: Home Edition Project Coordinator

Brentwood Union School District

Harvard-Westlake School

Performance optimization leader with extensive sales/marketing and management experience. Diverse background in developing, directing and implementing strategic sales objectives that exceed sales/profitability by driving results and leading effective sales, marketing and business teams toward a common goal.

- **Accomplished Sales Leader** with more than 25 years of experience. Diverse background with Fortune 250 global organizations.
- **Skilled change agent** who offers distinct advantages in managing teams and driving new business.
- **Outstanding communication skills;** engages and connects with diverse people at all levels of the organization. Trusted advisor to senior executives with ability to translate business goals into winning strategies.
- **Proven track-record** of excellent public engagement and community outreach skills.

- | | | |
|------------------------------------|-------------------------------|--------------------------|
| • Sales & marketing management | • People management | • Sales training |
| • Strategic planning & execution | • New business development | • Leadership and support |
| • Driving collaboration & teamwork | • Contract development | • Skilled change agent |
| • Executive relationship building | • Integrated solution selling | • Organizational skills |

Career Achievements

IQAir North America

Los Angeles, CA | 2017 - present

Director Community Outreach -IQAir Foundation

Directing efforts with respect to government and local funding for Clean Air in Schools Program through negotiations with regulation control districts nationwide, community groups, private funding sources and environmental justice educators. Focus on assisting with immediate mitigation efforts and funding assistance for communities with socioeconomically disadvantaged conditions for schools, homes, and housing for comprehensive multi-year air filtration installation projects. As Director of Community Engagement, provided critical support for community engagement and communications initiatives with a special focus on environmental justice by helping improve environmental health conditions in neighborhoods overburdened by pollution because of economic, historic land-use, or ethnic/racial factors. Collaboration with stakeholders within air districts, communities, parents and stakeholders. Specific goals achieved:

- 1) Responsible for business expansion in revenue for over \$15M of local and state funding opportunities.
- 2) Expanding brand recognition to state organizations through public engagements.
- 3) Communicating strategically to a broad range of stakeholders on key pollution-control efforts and initiatives
- 4) Work collaboratively across the organization, reporting to the CEO.

Commercial Business Development Manager

Overseeing territory and management of all focus market areas: Hospitality, Pharmaceutical Labs, Chemical Processing, Infection Control, Cleanrooms, Print Processing, and workplace environments concerned with employee health and safety, EPA, OSHA and WELL standards.

- Contracted new distributor partner demonstrating sales touch points into new business models such as senior living housing, corporate hospitality, medical facilities and MBE, MWE and SBA's diverse program implementation. Spearheaded company's participation in GSA contract model process.

MSC Industrial Supply

Melville, NY | 2007 - 2017

Commercial National Accounts Team Manager (2015–2017)

- **Managed** \$350M territory; Exceeded sales and margin quota by 120%
- **Led a team of 10 associates to develop strategic sales strategies to increase revenue and profitability** through business development, solution selling, sales training and margin enhancement.
- **Coached team to build executive relationships** to introduce a solution offering that allows for gains in sales and profitability.

Market National Accounts Market Team Manager (2013-2015)

- **Managed \$450M territory; exceeded quota:** 2013 - 103%, 2015 - 104%
- Responsible for the management of 12 associates; together developed selling techniques and strategies by implementing customized programs to drive trusted advisor status within customer base.
- Developed strategic and leadership plans, forecasting and objective setting to exceed sales goals.

Senior National Account Manager (2007-2013)

- **Managed \$40M territory-** Exceeded sales quota by 15% each year, consecutively.
- **Responsible for sales/profit strategy for Fortune 500 companies via indirect management responsibility by coaching and mentoring the local sales teams** to develop and implement account strategies to increase profitability and top-line sales within my portfolio.

ITW (Illinois Tool Works) Thermal Films Division

Romeo, MI | 2005 - 2007

Business Development Manager

- Developed and implemented customer specific business plans and marketing collateral material to increase brand awareness and entry into vertical markets.
- Grew existing territory by developing a one-stop program whereby sales were increased by 20% in 2006, and 13% ahead of schedule for 2007 within a competitive commodity market environment.

Autospecialty Division of (UAI)

Carson, CA | Alsip, IL | 2001 - 2005

Western Regional Sales Director

- Supervised 12 manufacturers' sales representatives and 2 direct staff. **Doubled regional sales volume by 200%** of quota. President's Club; annually surpassing company's sales quota. Proactive in addressing price compression issues with existing customers by developing business plans which improved profitability.

Honeywell Friction Materials, Bendix

Troy, MI | 2000 - 2001

Vice President Marketing, Americas

- Responsible for 17 direct reports. **Led North America marketing efforts** including product, pricing, advertising, promotions and brand positioning, as well as developing overall strategies for the business unit. Further responsibilities included margin and profitability, direction of media planning, trade advertising, catalog database management, focus groups, new product launches and pricing strategies.
- **Successful transition and restructure of the Marketing organization** including comprehensive process mapping, recruitment, and the redefining of responsibilities and training programs for staff of 17.
- Developed and implemented new programs/strategy for North America, evaluated current business model, competitive benchmarking, customer research and market trends. The net results of addressing the decline of this product category generated \$2M of incremental sales revenue.
- Identified and orchestrated all new marketing business opportunities with existing and potential suppliers. **Led efforts in licensing opportunities which yielded cost savings of \$8-10M.**

Visteon Automotive Systems/ Ford Motor Company

Dearborn, MI | 1999 - 2000

Global Sales and Marketing Account Manager

Responsible for \$700M in sales volume for Ford Motor Company's Heat Exchanger Technology.

Achievements

Sales Performance Presidents Club: 5 consecutive years, development MSC Mexico Penetration Strategy, Facilitator of MSC Diversity Program Task Force, Task Force member of MSC Cost Savings Documentation Task Force, development of strategy for Automotive Vertical Market.

Professional Training

Challenger Sales Training (2017), SAMA Leadership Training (2016), MSC Leadership Training (2016), Karass Negotiation Training, AWDA Committee Member, Global Symposium speaker Sales Presentations- Cooper Automotive, Achieving Win/Win Outcomes/Ford Training Center, Negotiating Skills, Ford Fairlane Center, Karass: Win/Win Negotiation Training, Representative to the AIM Council, Awarded Supplier of the Year for Outstanding Customer Service from Tier I OEM Supplier/ZF.

Education/Associations

- William Paterson College, Wayne, NJ -BA
- County College of Morris: Marketing
- National Organization of Professional Women
- Member of the Strategic Account Management Association

APPENDIX D

LETTERS OF SUPPORT AND COMMITMENT

FROM PROJECT PARTNERS



Attn: Jennifer A. Lentz, Ph.D.
Deputy Director of Programs
Coalition for Clean Air
660 S. Figueroa St., Suite #1140
Los Angeles, CA 90017

March 16, 2022

Re: The EPA's Enhanced Air Quality Monitoring for Communities "AirAware - YMCA" Grant Application

Dear Dr. Lentz:

On behalf of TD Environmental Services, I am pleased to provide this letter of commitment and support for the Coalition for Clean Air (CCA)'s application for a three-year grant from the US. Environmental Protection Agency designed to improve air quality monitoring in disadvantaged communities.

TD Environmental Services, LLC specializes in collecting and analyzing data using new technologies to provide insights into the air we breathe. Our services span developing air sensor networks, managing data, performing in-depth analytics, working with communities, and giving clear insights.

If funded, this pilot project will focus on outdoor and indoor air quality monitoring and, where feasible improved indoor air filtration systems at select YMCAs in the Greater Los Angeles area. "AirAware" will couple an education and awareness program to increase visitors' and staff understanding of air quality and how they can respond to it, protecting themselves and their community. This project will work to address disproportionate health outcomes from air pollution in YMCA communities near ports, major roadways, and industrial areas through these measures. The AirAware project will also allow scale and grow air quality monitoring at YMCAs throughout California and across the country.

TD Environmental Staff will work with the project partners to create education and awareness programs for YMCA staff, visitors, and other interested community members. These educational components will provide individuals with actionable information, helping them understand the basics of air quality, reduce their exposure to air pollution, and advocate for and change their neighborhood's air quality. Youth programming will be the primary focus of this educational work. The team will work closely with the YMCA's youth program coordinators to integrate air quality education into sites' education infrastructure. Ultimately, our AirAware program will empower YMCA communities to take an active role in understanding and reducing their daily exposure to air pollution.

Please accept this letter and the signature below as the TD Environmental Services' commitment to this proposal. If you have any questions, please do not hesitate to contact me at Tim@tdenviro.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tim Dye'.

Tim Dye, Founder
TD Environmental Services

TDEnviro.com

245 Kentucky St., Suite A • Petaluma, CA 94952 • 707-310-5541 (m) • Tim@TDEnviro.com



Empowering the world to breathe cleaner air through
information, collaboration and technology solutions

March 22, 2022

Attn: Jennifer A. Lentz, Ph.D.
Deputy Director of Programs
Coalition for Clean Air
660 S. Figueroa St., Suite #1140
Los Angeles, CA 90017

Re: The EPA's Enhanced Air Quality Monitoring for Communities "AirAware – YMCA" Grant Application

Dear Dr. Lentz:

On behalf of the *IQAir Foundation*, it is my pleasure to provide this letter of commitment and support for the *Coalition for Clean Air (CCA)*'s application for a three-year grant from the *US. Environmental Protection Agency* designed to improve air quality monitoring in disadvantaged communities.

If funded, this pilot project will focus on outdoor and indoor air quality monitoring, and where feasible improved indoor air filtration systems, at select *YMCAs* in the Greater Los Angeles area. "AirAware" will couple an education and awareness program to increase visitor and staff understanding of what air quality is and how they can respond to it, protecting both themselves and their community. This project will work to address disproportionate health outcomes from air pollution in *YMCA* communities near ports, major roadways, and industrial areas through these measures. The AirAware project will also provide an opportunity to scale and grow air quality monitoring at *YMCAs* throughout California and across the country.

The *IQAir Foundation* is a 501(c)(3) non-profit organization that supports disadvantaged and underserved communities, which are disproportionately affected by adverse environmental conditions. Busy freeway or highway interchanges or a bustling industrial district affect their surrounding communities. These areas and communities, often suffer with higher rates of asthma and other resulting respiratory illnesses, with children in these vulnerable communities suffer higher rates of related illnesses as a result of this environmental inequality.

Our organization seeks to promote environmental justice by helping to improve access to air quality data, environmental literacy, and providing technology solutions to those unfairly affected by pollution as a result of socio-economic or racial factors. We step in when communities are unfairly affected by air pollution and environmental toxins, working in collaboration with environmental justice and community-based groups.

Please accept this letter and the signature below as the *IQAir Foundation's* commitment to this proposal. If you have any questions, please do not hesitate to contact me at Nancy.Dinella@iqairfoundation.org.

Sincerely,

Nancy Dinella
Community Outreach Director
IQAir Foundation



March 16, 2022

Attn: Jennifer A. Lentz, Ph.D.
Deputy Director of Programs
Coalition for Clean Air
660 S. Figueroa St., Suite #1140
Los Angeles, CA 90017

Re: The EPA's Enhanced Air Quality Monitoring for Communities "AirAware – YMCA" Grant Application

Dear Dr. Lentz:

On behalf of the *YMCA of West San Gabriel Valley (WSGV)*, it is my pleasure to provide this letter of commitment and support for the *Coalition for Clean Air (CCA)*'s application for a three-year grant from the *US Environmental Protection Agency* designed to improve air quality monitoring in disadvantaged communities. At the nexus of youth, community, and neighborhoods impacted by air pollution sit local YMCAs. With over 2,500 nationwide locations that serve more than 10,000 communities, YMCAs serve as a vital community hub for many families and individuals in the United States. For this reason, we would very much like to include YMCAs, and specifically our location, as our community-based partners on this grant.

The YMCA of WSGV has served the cities of Alhambra, Monterey Park, Rosemead, and San Gabriel for over 100 years, and is known for bringing a sense of belonging to the community. We work to promote strong basic values and feelings of high self-worth that are critical to people of all ages and are committed to programs that build healthy kids, healthy families, and healthy communities.

If funded, this pilot project will focus on outdoor and indoor air quality monitoring, and where feasible improved indoor air filtration systems, at our YMCA location in Alhambra, CA. The "AirAware" program will couple an education and awareness program to increase visitor and staff understanding of what air quality is and how they can respond to it, protecting both themselves and their community. This project will work to address disproportionate health outcomes from air pollution in YMCA communities near ports, major roadways, and industrial areas through these measures. The AirAware project will also provide an opportunity to scale and grow air quality monitoring at YMCAs throughout California and across the country.

Please accept this letter and the signature below as the *YMCA of West San Gabriel Valley*'s commitment to this proposal. If you have any questions, please do not hesitate to contact me at val.ymca@gmail.com.

Sincerely,

Valarie Gomez, CEO
YMCA West San Gabriel Valley
401 Corto St., Alhambra, CA 91801
<https://wsgvymca.org/>

YMCA of West San Gabriel Valley • 401 East Corto Street • Alhambra, California 91801
(626) 576-0226 • www.wsgvymca.org

The Mission and Purpose of the West San Gabriel Valley YMCA is to put Christian principles into practice through programs that build a healthy spirit, mind and body for all.

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FOR YOUTH DEVELOPMENT*
FOR HEALTHY LIVING
FOR SOCIAL RESPONSIBILITY

March 23, 2022

Attn: Jennifer A. Lentz, Ph.D.
Deputy Director of Programs
Coalition for Clean Air
660 S. Figueroa St., Suite #1140
Los Angeles, CA 90017

Re: The EPA's Enhanced Air Quality Monitoring for Communities "AirAware – YMCA" Grant Application

Dear Dr. Lentz:

On behalf of the YMCA of Pomona Valley's Diamond Bar/Walnut location, it is my pleasure to provide this letter of commitment and support for the Coalition for Clean Air (CCA)'s application for a three-year grant from the US. Environmental Protection Agency designed to improve air quality monitoring in disadvantaged communities.

The YMCA of Pomona Valley works with our neighbors to ensure everyone, regardless of age, income or background has the opportunity to learn, grow and thrive. We are part of the association of the YMCA of Orange County, which works to strengthen communities through programs committed to youth development, healthy living, and social responsibility throughout Orange County, East San Gabriel Valley, Pomona Valley, and Riverside County. With five Health & Wellness Centers, three program centers, 80+ Before & Afterschool Program locations, two special needs programs, and numerous community resources, the Y connects people to their potential, purpose, and to each other. Donations, grants, and legacy gifts ensure Y programs are open to all regardless of an individual's or family's financial circumstances. One hundred percent of donations received support our financial assistance program or subsidized Y programs for those most in need.

If funded, this pilot project will focus on outdoor and indoor air quality monitoring, and where feasible improved indoor air filtration systems, at our YMCA location in Diamond Bar, California. The "AirAware" program will couple an education and awareness program to increase visitor and staff understanding of what air quality is and how they can respond to it, protecting both themselves and their community. This project will work to address disproportionate health outcomes from air pollution in YMCA communities near ports, major roadways, and industrial areas through these measures. The AirAware project will also provide an opportunity to scale and grow air quality monitoring at YMCAs throughout California and across the country.

Please accept this letter and the signature below as the YMCA of Pomona Valley's Diamond Bar/Walnut location's commitment to this proposal. If you have any questions, please do not hesitate to contact me at mquintero@ymcaoc.org

Sincerely,

Miguel Quintero, Procurement & Contracts Administrator

YMCA of Pomona Valley, Diamond Bar
22600 Sunset Crossing Rd., Diamond Bar, CA 91765
<https://ymcaoc.org/ymca-pomona-valley/>



FOR YOUTH DEVELOPMENT
FOR HEALTHY LIVING
FOR SOCIAL RESPONSIBILITY

March 25, 2022

Attn: Jennifer A. Lentz, Ph.D.
Deputy Director of Programs
Coalition for Clean Air
660 S. Figueroa St., Suite #1140
Los Angeles, CA 90017

Re: The EPA's Enhanced Air Quality Monitoring for Communities "AirAware – YMCA" Grant
Application
Dear Dr. Lentz:

On behalf of the YMCA of Metropolitan Los Angeles' Montebello-Commerce location, it is my pleasure to provide this letter of commitment and support for the Coalition for Clean Air (CCA)'s application for a three-year grant from the US. Environmental Protection Agency designed to improve air quality monitoring in disadvantaged communities.

The YMCA of Metropolitan Los Angeles' Montebello-Commerce location, was rated amongst the 2021 "Greatest Nonprofits" for supporting programs that build healthy spirit, mind and body for all. Our organization works to strengthen our communities through youth development, healthy living and social responsibility. We serve over 5,000 families throughout the San Gabriel Valley and Los Angeles County every year. Our programs range from preschool to water safety, summer camp and teen leadership development, diverse abilities programs to teen leadership- model government programs. Additionally, since the beginning of the pandemic, the YMCA has provided over a half a million free meals to food insecure families along with free diapers and baby formula, free flu shots and COVID-19 vaccinations, and free drive-through activity kids to families each Spring along with free Christmas toy give aways in December.

If funded, this pilot project will focus on outdoor and indoor air quality monitoring, and where feasible improved indoor air filtration systems, at our YMCA location in Montebello, CA. The "AirAware" program will couple an education and awareness program to increase visitor and staff understanding of what air quality is and how they can respond to it, protecting both themselves and their community. This project will work to address disproportionate health outcomes from air pollution in YMCA communities near ports, major roadways, and industrial areas through these measures. The AirAware project will also provide an opportunity to scale and grow air quality monitoring at YMCAs throughout California and across the country.

Please accept this letter and the signature below as the YMCA of Metropolitan Los Angeles' Montebello-Commerce location's commitment to this proposal. If you have any questions, please do not hesitate to contact me at PaulParzik@ymcala.org.

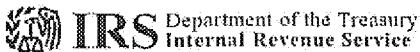
Best Regards,

Paul Parzik

Executive Director

APPENDIX E

PROOF OF NONPROFIT STATUS



Department of the Treasury
Internal Revenue Service
P.O. Box 2508
Cincinnati OH 45201

In reply refer to: 0248467579
Sep. 19, 2012 LTR 4168C E0
23-7120567 000000 00
00020577
BODC: TE

COALITION FOR CLEAN AIR
800 WILSHIRE BLVD STE 1010
LOS ANGELES CA 90017



009859

Employer Identification Number: 23-7120567
Person to Contact: Mr Gerding
Toll Free Telephone Number: 1-877-829-5500

Dear Taxpayer:

This is in response to your Sep. 10, 2012, request for information regarding your tax-exempt status.

Our records indicate that you were recognized as exempt under section 501(c)(3) of the Internal Revenue Code in a determination letter issued in July 1971.

Our records also indicate that you are not a private foundation within the meaning of section 509(a) of the Code because you are described in section 509(a)(2).

Donors may deduct contributions to you as provided in section 170 of the Code. Bequests, legacies, devises, transfers, or gifts to you or for your use are deductible for Federal estate and gift tax purposes if they meet the applicable provisions of sections 2055, 2106, and 2522 of the Code.

Please refer to our website www.irs.gov/eo for information regarding filing requirements. Specifically, section 6033(j) of the Code provides that failure to file an annual information return for three consecutive years results in revocation of tax-exempt status as of the filing due date of the third return for organizations required to file. We will publish a list of organizations whose tax-exempt status was revoked under section 6033(j) of the Code on our website beginning in early 2011.



IRS Department of the Treasury
Internal Revenue Service

P.O. Box 2508
Cincinnati OH 45201

009859.246505.0043.001 1 AT 0.374 532



COALITION FOR CLEAN AIR
800 WILSHIRE BLVD STE 1010
LOS ANGELES CA 90017



009859

CUT OUT AND RETURN THE VOUCHER AT THE BOTTOM OF THIS PAGE IF YOU ARE MAKING A PAYMENT,
EVEN IF YOU ALSO HAVE AN INQUIRY.

The IRS address must appear in the window.

0248467579

BODCD-TE

Use for payments

Letter Number: LTR4168C
Letter Date : 2012-09-19
Tax Period : 000000



237120567

INTERNAL REVENUE SERVICE
P.O. Box 2508
Cincinnati OH 45201
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COALITION FOR CLEAN AIR
800 WILSHIRE BLVD STE 1010
LOS ANGELES CA 90017

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AIRAWARE

EMPOWERING YMCA COMMUNITIES TO USE REAL-TIME DATA AND AWARENESS TO REDUCE POLLUTION EXPOSURE

APPENDICES

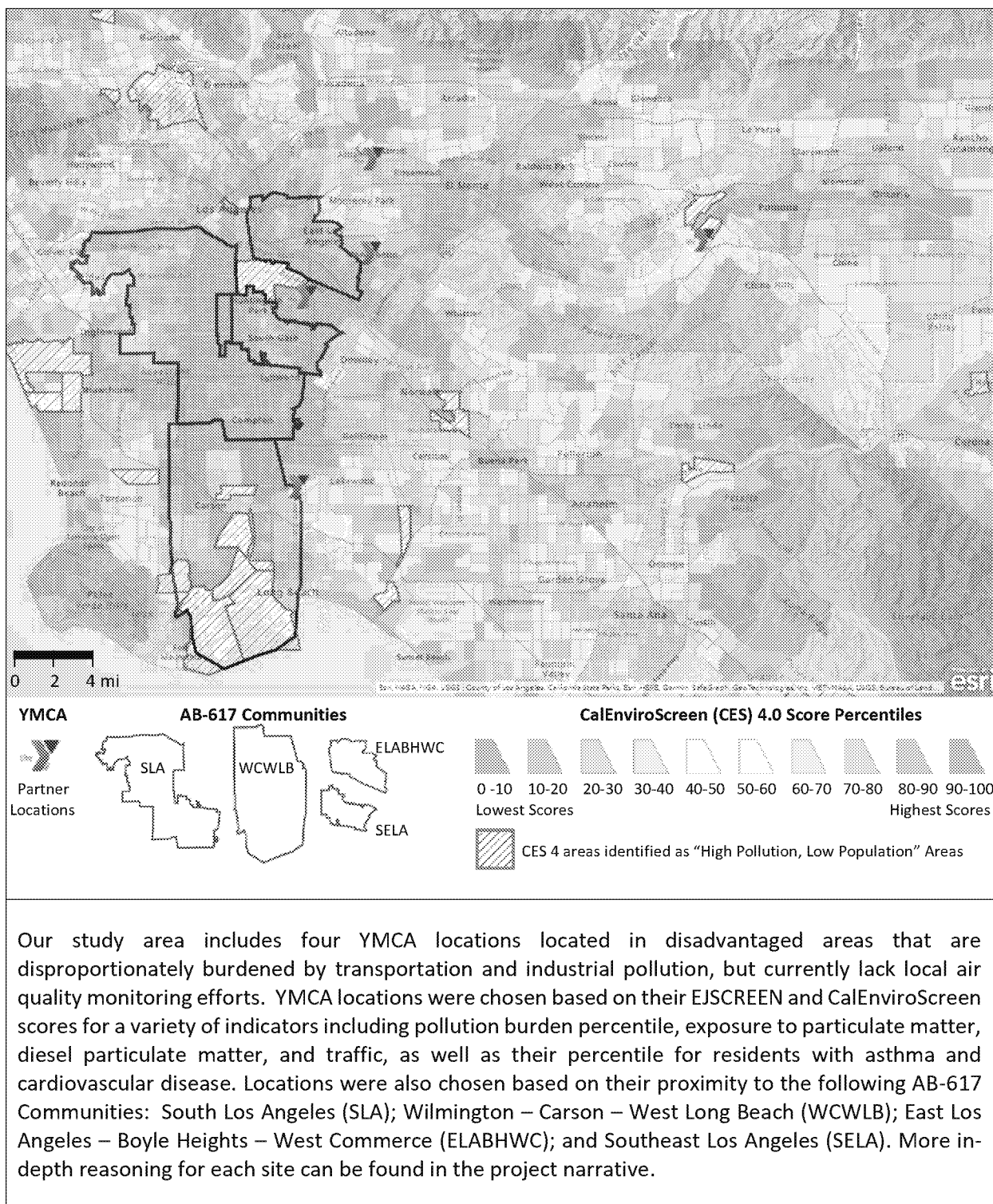
APPENDIX A	PROJECT LOCATIONS
APPENDIX B	QUALITY ASSURANCE STATEMENT
APPENDIX C	RESUMES OF KEY PROJECT STAFF
APPENDIX D	LETTERS OF SUPPORT AND COMMITMENT FROM PROJECT PARTNERS
APPENDIX E	PROOF OF NONPROFIT STATUS
APPENDIX F	CCA'S BOARD OF DIRECTORS

EPA-OAR-OAQPS-22-01

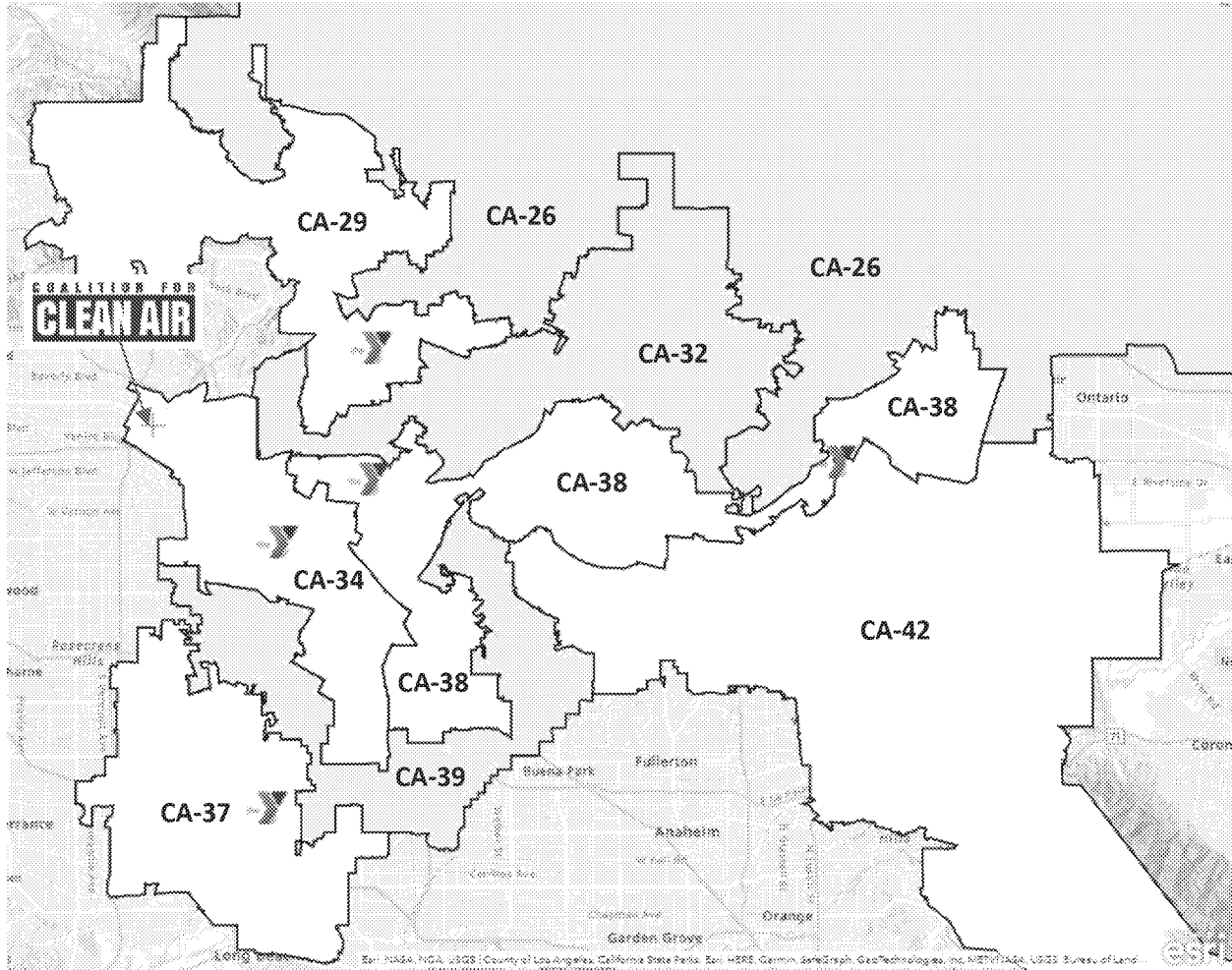
Enhanced Air Quality Monitoring for Communities

APPENDIX A

PROJECT LOCATION



Congressional Districts



The Applicant (Coalition for Clean Air) is located in Congressional District **CA-34**.

Our YMCA Project Locations are located in the following Congressional Districts: **CA-29, CA-34, CA-37, CA-38, and CA-42**, while also servicing the communities of **CA-26, CA-32, and CA-39**.

APPENDIX B

QUALITY ASSURANCE STATEMENT

Appendix A. Quality Assurance Statement

The Quality Assurance and Quality Control approach will involve a QA/QC lead for the project and QA/QC practices to ensure complete, timely, and accurate data collection for all air quality instruments. Our team is very familiar with Quality Assurance Project Plans (QAPP) and will develop a QAPP before the award of an assistance agreement.

Responsibility for quality will use the AirAware team members discussed in **Section 6C**. CCA is the overall project lead and Tim Dye at TDE will be the quality assurance lead. He will be responsible for instilling methods and procedures that ensure high-quality data for these YMCAs. Tim has over 30 years of air monitoring experience and has developed QA procedures, QAPPs, and QA guidance for air quality and meteorological monitoring for the U.S. EPA, state/local air quality agencies, and NGOs.

Our general approach for conducting quality assurance includes the following activities:

- Selecting a quality sensor, IQAir's AirVisual Pro, that has received favorable evaluations from many organizations, including AQSpec (2022), Zamora et al. (2020), and Airparif (AirLab 2019).
- Meeting EPA's new performance targets for Fine Particulate Matter (PM_{2.5}) air sensors (Duvall et al. 2021) for Non-regulatory Supplemental and Informational Monitoring (NSIM) applications
- Collocating all sensors at the beginning of the study and comparing them to nearby reference measurements for PM_{2.5} and Black Carbon (BC)
- Applying data correction algorithms for the PM_{2.5} sensor data using IQAir's cloud system
- Conducting maintenance on a monthly and annual based to check the integrity of each sensor
- Conducting daily and monthly data reviews of the data to detect any problems early and take appropriate action
- Using Standard Operating Procedures (SOPs) for routine tasks allows anyone on the AirAware team or staff at each YMCA to maintain the equipment

Data quality objectives for the measurements includes:

- **Fine Particulate Matter** (PM_{2.5}) sampling will be measured using IQAir AirVisual Pro monitors (IQAir 2022). Each monitor contains a Plantower air sensor component widely used and characterized by many organizations, including the AQ-SPEC program.
 - The data quality objectives are based on EPA's performance target for PM_{2.5} sensors (Duvall et al. 2021):
 - Bias Slope of 1.0 ± 0.35 and an Intercept (b) of $-5 \leq b \leq 5 \mu\text{g}/\text{m}^3$
 - Linearity Coefficient of Determination (R^2) of greater than 0.70
 - Normalized Root Mean Square Error (NRMSE) less than 30%
 - Data completeness greater than 90%
 - We will compare the outdoor sensors with the nearest FEM reference instrument. Although not colocated, we believe that the comparison will be sufficient to identify and repair any PM_{2.5} sensors. Indoors, we will compare the PM_{2.5} sensors annually to compute precision by collocating the sensors for a 48-hour period.

- **Black Carbon (BC)** - The microAeth® MA350 is a real-time 5-wavelength UV-VIS-IR Black Carbon monitor housed in an outdoor-rated case with an 85-sampling location automatic filter tape advance system for 3-12 months of continuous measurements. The EPA has not designated a FEM for the real-time collection of BC. No method currently exists for directly calibrating an aethalometer or establishing a certified standard. We will conduct a sampler flow check ($\pm 10\%$ of design) and a zero-check using HEPA filter ($0 \pm 0.1 \mu\text{g}/\text{m}^3$) every quarter to ensure high-quality data. Annual, we will send the MA350 to the manufacturer for an instrument check-up. Data completeness criteria will be greater than 90%.
- **Carbon Dioxide (CO₂)** – The Airvisual Pro Indoor uses a non-dispersive infrared sensor to measure CO₂. To ensure quality, we plan to collocate the sensors at the beginning of the study and then collocate them indoors on an annual basis for a 48-hour period. Precision, as measured by NRMSE, would be less than 30%. Data completeness criteria will be greater than 90%.

Works Cited

AirLab (2019) Microsensors Challenge 2019: announcement of the results. AirLab brochure, 83pp. ([link](#))

AQSPEC (2022) IQAir – AirVisual Pro Sensor Detail. Air Quality Sensor Performance Evaluation Center (AQ-SPEC). South Coast Air Quality Management District (SCAQMD) website. ([link](#))

Duvall RA, Clements A, Hagler G, Kamal A, Kilaru V, Goodman L, Frederick S, Johnson Barkjohn K, VonWald I, Greene D, Dye T (2021) Performance Testing Protocols, Metrics, and Target Values for Fine Particulate Matter Air Sensors: Use in Ambient, Outdoor, Fixed Site, Non-Regulatory Supplemental and Informational Monitoring Applications. U.S. EPA Office of Research and Development, Washington, DC, EPA/600/R-20/280. ([link](#))

IQAir (2022) AirVisual Pro Product Setup. IQAir Guides and Manuals website ([link](#))

Zamora ML, Rice J, and Koehler K (2020) One Year Evaluation of Three Low-Cost PM_{2.5} Monitors. *Atmospheric Environment* (Oxford, England: 1994) 235, 117615. ([link](#))

APPENDIX C

RESUMES OF KEY PROJECT STAFF

JOSEPH K. LYOU, PH.D.

NON-PROFIT EXECUTIVE

5310 WEST 137TH STREET, HAWTHORNE, CALIFORNIA 90250 • (310) 493-8111 • JKLYOU@GMAIL.COM

Profile

Experienced non-profit management executive dedicated to protecting public health, improving air quality, and preventing climate change. Widely recognized leader in California's efforts to achieve environmental justice. Expert advocate who has worked successfully with elected officials, regulators, scientists, businesses, and community members to achieve policy objectives.

Experience

President & CEO, Coalition for Clean Air, September 2010 to present

Commissioner (Speaker of the Assembly Appointee), California Transportation Commission, January 2020 to present

Governor's Appointee, South Coast Air Quality Management District Governing Board, June 2007 to March 2019

Executive Director, California Environmental Rights Alliance, January 2003 to August 2010

Interim Executive Director, California League of Conservation Voters Education Fund, January 2002 to January 2003 (Director of Programs, April 2000 to January 2002)

Executive Director, Committee to Bridge the Gap, August 1991 to March 2000 (Associate Director, July 1990 to August 1991)

Select Professional Affiliations

Chair, Road Charge Technical Advisory Committee, California Transportation Commission, August 2020 to present

Member, National Center for Sustainable Transportation Leadership Council, July 2020 to present

Member, San Pedro Bay Ports Sustainable Supply Chain Advisory Committee (formerly Port of Los Angeles Sustainable Freight Advisory Group), June 2016 to present

Chair, South Coast Air Quality Management District Environmental Justice Advisory Group, May 2009 to March 2019

Education

Doctorate of Philosophy in Social Psychology, University of California at Santa Cruz, June 1990

Master of Science in Psychology, University of California at Santa Cruz, June 1986

Bachelor of Arts in Psychology, *summa cum laude*, California State University Northridge, January 1983

Awards & Honors

California Safe Schools, Earth Day Hero, 2019

Stanton Fellowship, Durfee Foundation, 2014-2015

RadTech President's Award for Vision & Leadership in Advancing UV/Electron Beam Technology, 2013

Clean Air Leadership Award, Coalition for Clean Air, 2005

Environmental Justice Award, California Communities Against Toxics, 2003

Certifications



Cardiopulmonary resuscitation (CPR), March 2021

Climate Reality Project, Climate Reality Leadership Corps Training, August 2018

Jennifer A. Lentz, Ph.D.

Accomplished Professional Dedicated to Creating Climate Resilient Communities and Ecosystems

CONTACT INFO

 Jenny@CCAir.org
 (213) 223-6867
 660 S Figueroa Street, Suite #1140
Los Angeles, CA 90017
 <http://www.JenniferALentz.info>
 [linkedin.com/in/Jennifer-A-Lentz](https://www.linkedin.com/in/Jennifer-A-Lentz)

AREAS OF EXPERTISE

Air Quality Monitoring Programs
Environmental Epidemiology
Resilience & Sustainability Strategies
Climate Change Impacts
Communicating Scientific Information
Community Outreach
Green Building Practices & Principles
Citizen/Community Science Programs
Environmental Ecology
Oceanography & Coastal Sciences
Spatial Epidemiology

ADDITIONAL INTERESTS

Energy Efficiency & Climate-Proofing
Stormwater Management
Improving Air Quality
Water Conservation
Urban & Community Planning
Equity & Environmental Justice
Reducing Urban Heat Island Effect
Transportation & Mass Transit
Emergency Preparedness
Home & Building Improvements

KEY SKILLS

Program Management
Critical Thinking & Problem-Solving
Editing & Attention to Detail
Organization & Strategic Planning
Reports & Presentations
Research & Data Analysis
Collaboration & Team Work
Staff Training & Development
Leadership

PROFESSIONAL EXPERIENCE

Deputy Director of Programs (2022 – Present)

Coalition for Clean Air (CCA), Los Angeles, CA

Manage CCA's Community Learning Enhances Air Resources (CLEAR) programs which aims to make the invisible visible, giving us the power to know what is in the air we breathe and empower our communities to take action to reduce their exposure to unhealthy air.

Program Manager (2020 – 2021)

Coalition for Clean Air (CCA), Los Angeles, CA

Education Coordinator – for Climate Resilience & Community Science Programs (2015 – 2020)

Aquarium of the Pacific (AOP), Long Beach, CA

Managed their Climate Resilient Outreach Program, Community (Citizen) Science Programs, and organized several annual events (including their annual Citizen Science for Conservation in Southern California Symposium, Reuse-A-Palooza event, 2-day Earth Day Festival and E-Waste drives). Developed static and interactive educational materials that use GIS to connect people to science. Online examples of this work include the Aquarium's award-winning story maps. One of the lead authors of the City of Long Beach Climate Resiliency Assessment Report commissioned by Mayor Garcia during his 2015 State of the City address.

Education Specialist (2013 – 2015) and Marine Science Fellow (Apr. – Sept. 2013)

Aquarium of the Pacific, Long Beach, CA

Taught K-12 classroom programs, interpreted with guests, performed informational "shows" at various exhibits, trained staff on doing shows, and developed exhibit content.

GIS Facilitator (2010 – 2012)

Louisiana State University (LSU), Baton Rouge, LA

Created an interactive, map-based website linked to a geospatial database for all of LSU's School of the Coast and Environment's research, & produced figures for publication.

CERTIFICATIONS AND TRAININGS

EcoDistricts Accredited Professional (December 29, 2019)

This credential demonstrates a commitment to sustainable, equitable neighborhoods that meet the EcoDistricts Certified standard for urban and community development that puts equity, resilience, and climate protection at the center of all decisions

Climate Change Communication, Science, & Action (October 15, 2019)

6-week course offered by the Cornell University Civic Ecology Lab and the Cornell Institute for Climate Smart Solutions (CICSS) and accredited by edX Edge and CornellX

U.S. Public Policy: Social, Economic, & Foreign Policies (August 19, 2019)

6-week course on "the driving forces & persistent tendencies of American politics." Accredited by edX and HarvardX, an online learning initiative of Harvard University

International Climate Change Law & Policy (August 16, 2019)

4-week course on "how to critically access Environmental Economics theory and its application to climate change policy." Accredited by edX and the University of Newcastle

Harwood Public Innovators Virtual Lab (4/01-5/23, 2019)

8-week interactive training on learning what it takes to "Turn Outward" – to use the community, not your conference room, as your reference point for choices and action.

Ecodesign for Cities and Suburbs (May, 2019)

6-week interactive online course on "how ecology can guide urban design to avert environmental disasters and improve people's lives." Accredited through edX and the University of British Columbia.

Climate Reality Leadership Corps (3/14-16, 2019)

Accepted into the *Climate Reality's* 3-day leadership training led by world-renowned scientists and communicators focused on inspiring solutions-based communications.

LEED® Green Associate™ (12/2018 – 12/2020)

Green Business Certification Inc. certifies that the individual has demonstrated knowledge and understanding of green building practices and principles needed to support the use of the LEED® green building program.

Management Development Program – Performance Certificate (2016)

10-week training course by Paul G. Allman, President of *Profession Training Services*

PROFESSIONAL AFFILIATIONS	HONORS AND AWARDS
<p>APPOINTED POSITIONS</p> <p>Association of Energy Engineers (AEE SoCal) Board of Directors (2019-2020) Sustainability Committee Co-Chair (2019-2020)</p> <p>National Adaptation Forum (2021 NAF) Equity & Climate Justice Working Group</p> <p>Significant Ecological Areas Technical Advisory Committee (SEATAC) for LA County. Appointed to a 3yr term (2019 – 2022)</p> <p>Sigma Xi, Inducted by Hamilton College's Chapter</p> <p>GENERAL MEMBERSHIPS</p> <p>American Society of Adaptation Professionals (ASAP)</p> <p>Association of Women in Water, Energy, & Environment (AWWEE)</p> <p>California Water Environment Association (CWEA)</p> <p>EcoDistricts</p> <p>LA Regional Collaborative (LARC) for Climate Action & Sustainability</p> <p>US Green Building Council (USGBC) – LA Area Chapter & Long Beach Branch, Member & Volunteer</p>	<p>ESRI's "Special Achievement in GIS (SAG) Award" (2015) "This award is given to user sites around the world to recognize outstanding work with GIS technology. Your organization stood out from more than 100,000 others." - <i>ESRI</i> Award letter</p> <p>ESRI's Story Map Award (2016 and 2014) Southern California Steelhead Story Map received 1st Place at <i>ESRI's</i> 2014 Ocean GIS Forum and 3rd Place at <i>ESRI's</i> 2016 User Conference</p> <p>CEGO Leadership and Service Award (2010 – 2011) For "outstanding leadership, initiative, and dedication in service to CEGO"</p> <p>Tom W. Dutton Service Award (2010 – 2011) "For outstanding service to the University community through participation and leadership in community service activities while attending LSU." – Award Letter</p> <p>Embassy of the Federal Republic of Germany's Certificate of Appreciation (2010) "For outstanding contribution to the Transatlantic Climate Bridge initiative and dedication to raising awareness about energy conservation and protecting our planet on LSU's campus"</p>
SERVICE	INVITED PRESENTATIONS
<p>USGBC-LA Legacy Project, Volunteer 2019</p> <p>IDigLB Tree Planting, Volunteer 2017-2018</p> <p>Science Fair, Judge 2006 – 2017</p> <p>Ropes Course, Facilitator 2000 – 2011</p>	<p>Lentz JA (2020) Creating a Climate Resilient California using Nature-based Solutions (Keynote). California Garden Club, Inc (CGCI)'s 2020 Winter Board Meeting on February 4, 2020, in Long Beach, CA. National Garden Club (NGC) Tri-Refresher credit available to presentation attendees.</p> <p>Lentz JA (2020) Sustainability & Resilience at the Aquarium of the Pacific (Keynote). California Water Environment Association (CWEA)'s 47th Annual Pretreatment, Pollution Prevention, & Stormwater (P3S) Conference, on January 28, 2020 in Long Beach, CA. Attendees earned 1 CWEA Contact Hour for attending this presentation.</p> <p>Lentz JA (2019) Creating a Climate Resilient Long Beach. Invited presentation and panelist at the Ocean Resiliency Gala – A Call to Action event, on November 12, 2019 in Long Beach, CA.</p> <p>Lentz JA (2019) One of three local experts invited to panelists for the post-film discussion following the screening of "The Human Element." A Breathe LA California Clean Air Day event, held at the Laemmle Monica Film Center, on October 3, 2019 in Santa Monica, CA.</p> <p>Lentz JA (2019) Sustainability & Resilience at the Aquarium of the Pacific. Energy Coalition's "Resiliency & Energy for Public Agencies" event on August 29, 2019 in Long Beach, CA.</p> <p>Lentz JA (2019) Urban Growth and Building for People. Panel Discussion, as part of the First Annual Long Beach Architecture Week. Studio One Eleven, Long Beach, CA. June 5, 2019.</p> <p>Lentz JA (2019) Aquarium of the Pacific's Climate Resilience Work. Presentation requested by and for the Long Beach Sustainable City Commission. May 23, 2019.</p> <p>Lentz JA (2019) Climate Impacts in Long Beach. Climate Solutions for Long Beach. Presentations and Panel Discussion at the Extreme Heat in Long Beach, Staying Safe & Solving Climate Change, City of Long Beach CAAP Event. March 30, 2019.</p> <p>Lentz JA (2018) Current & Future Climate Impacts for the City of Long Beach. CSULB's Climathon, on October 26, 2018, in Long Beach, CA. Also served as a Judge for the project competition.</p> <p>Lentz JA (2018) Current & Future Climate Impacts for the City of Long Beach. California State University Long Beach (CSULB)'s 2018 Resilience Charrette, on March 2, 2018.</p> <p>Lentz, JA (2016) One of five professionals invited to speak at CSULB's Green Careers Panel.</p> <p>Lentz JA (2015) Coral Health – Understanding the Animal, Ecosystem, and Stressors from a Spatial Point of View. American Cetacean Society's Orange County Chapter (ACS-OC).</p>
TECHNICAL SKILLS	EDUCATION
<p>GIS and Spatial Analysis Proficient at <i>ArcGIS 9-10x</i> and <i>ArcGIS Online</i> Familiar with <i>ArcView 3x</i> and <i>ArcGIS Pro</i> Proficient at <i>Google Earth</i> and Familiar with <i>Google APIs</i></p> <p>Graphic Design Proficient at <i>Adobe Photoshop</i></p> <p>Software Platforms <i>Microsoft Office Suite</i> L Expert at <i>Word</i> and <i>PowerPoint</i> L Highly-Proficient at <i>Excel</i> and <i>Outlook</i> L Proficient at <i>Access</i>, <i>Publisher</i>, <i>SharePoint</i> Proficient with online storage platforms, collaborative project boards like <i>Trello</i>, communications platforms like <i>Mailchimp</i>, citation software like <i>Endnote</i>, and various social media platforms</p> <p>Web Design Proficient at web design and some coding</p>	<p>Ph.D. from Louisiana State University, in Baton Rouge, LA (2005 – 2012) Major: Department of Oceanography and Coastal Sciences Minor: Department of Geography and Anthropology (with a GIS concentration) <u>Developing A Geospatial Protocol For Coral Epizootiology</u>. LSU Doctoral Dissertation. 321 pp. Board of Regents Graduate Fellowship (2005-2009)</p> <p>B.A. from Hamilton College, in Clinton, NY (2001 – 2005) Major: Interdisciplinary Concentration (in Environmental Science); Minor: Studio Art Graduated <i>Cum Laude</i> with an Interdisciplinary Concentration Honor & Elihu Root Fellowship (\$5,000) Alexander Hamilton 100 Best Writers Award (2002, 2003)</p>

Profile

Tim Dye is a visionary and entrepreneur with over 30 years of experience creating innovative programs for air quality applications. In 2017, Tim founded TD Environmental Services (TDE), which specializes in collecting and analyzing data using low- and mid-cost air sensors to provide insights about the air we breathe. At TDE, he combines novel technologies and sound science to work on practical and cutting-edge air quality applications. He is a widely recognized leader in air quality sensor technologies for environmental applications and respected as an independent voice in the air sensor community. A visionary and an entrepreneur, he has created many operational air quality programs that provide custom and routine air quality services.

Before founding TDE, Tim held a number of executive and management positions at Sonoma Technology, where he led teams to develop creative, custom programs focused on air sensors, data management systems (AirNow.gov), data analysis, and public education. At TDE, Tim uses his creativity and deep experience to empower organizations to use air sensors to collect high-quality data for a range of applications. His knowledge of the air sensors ecosystem, companies, and experts worldwide allows him to create the best solutions for his clients, including foundations, community groups, private companies, and government organizations.

Air Sensors

Mr. Dye is a widely recognized leader in air sensor and Internet of Things (IoT) technologies for environmental applications. For ten years, he has led a broad range of efforts to evaluate and test air sensors to understand how organizations could most effectively employ this new and rapidly changing technology. Mr. Dye built air quality sensing systems for fixed and mobile applications, wrote the U.S. EPA's guidebook on air quality sensors, conducted studies to evaluate and quantify sensor performance, and developed analytics to create information from sensor data. For example, Tim guided the World Resource Institute staff in São Paulo, Brazil, through all aspects of using low-cost air sensors to address pollution from transportation sources. In India, Tim worked with the Shakti Foundation to guide their efforts to install 250 air sensors across the country. Both of these capacity-building projects cover all aspects of using sensors, including setting objectives, developing data quality objectives, selecting and deploying sensors, managing and analyzing data, and more. While completing many air monitoring studies, he has addressed a range of air quality challenges with low-cost sensors: residential wood smoke, wildfire smoke, agricultural dust, and coal dust. Community groups, government, industry, and companies worldwide seek Tim's experience and strategic insights on air quality sensing.

Training and Education

Tim has a long history of developing innovative products and services. Examples include an infographic, "4 questions to ask when buying an air quality sensor" and SmogCity2, an online game that simulates the cause-and-effect relationships between air quality and weather, emissions, and population. He is currently developing AirActions, an educational program that uses new technologies (including air sensors) to educate students and take actions to improve air quality.

Data Management and Analysis

For over two decades, Tim has specialized in designing and developing powerful information systems for air quality applications and public communication. He is an internationally recognized leader in developing air quality information systems like the EPA's AirNow program. Currently, Tim is leading an effort to create a data management system to ingest, process, and display air quality sensors data for the City of Denver and other clients to provide real-time air quality information to schools and decision-makers.

Education and Certifications

MS, Meteorology, Pennsylvania State University

Certified Consulting Meteorologist (#619)

BS, Meteorology, Millersville University of Pennsylvania

Profile

Story Schwantes joined TD Environmental Services with experience and a background in air quality, STEM education, and multimedia communication. She began working for TD Environmental Services in the Spring of 2020 and continues to take on technical and project management responsibilities.

Air Quality & Sustainability

Story worked as part of a team researching Colorado Front Range air quality issues, utilizing her creativity, detail-oriented work style, and communication ability on several projects. These projects included analyzing coal-fired power plant emissions, tracking regional fate and transport of airborne heavy metals in the southwestern US, and deploying an experimental high-precision oxidized mercury analyzer and calibrator. She co-authored a paper on the coal-fired power plant research and has presented the findings at conferences.

Recently, as an AmeriCorps member, Story served as the Sustainability Specialist for the City of Golden Valley, MN. She focused on environmental issues, including electric vehicle proliferation, waste management, building energy efficiency, and renewable energy availability and use. A few of her larger projects included bringing curbside organics recycling pickup to the city and developing and implementing a city-wide energy efficiency and emissions reduction plan. She worked to identify and assist households having difficulties paying their energy bills, serving as a resource for other municipalities seeking a strategic method to support this segment of their populations. Her natural ability to bring groups together helped guide municipal initiatives, bridging gaps in communication and action between regional government, local businesses, non-profits, schools, and residents.

Training and Education

In Colorado, Story worked with school districts to craft an after-school STEM enrichment program for underserved elementary school students, creating learning modules to expand student understanding of and enthusiasm for scientific concepts. In her work with high school students at the Science Museum of Minnesota, she developed and taught a wide variety of environmental curriculum, from an introduction to geographic information systems (GIS), to units on local environmental justice issues surrounding air quality, water pollution, and equitable energy access.

Film & Communication

Story served as associate producer and content creator for the Rocky Mountain PBS TV series "In Short." Responsibilities included all aspects of production, from principal photography and editing to quality controlling to on-air standards and developing marketing materials. She has also worked with TD Environmental to develop air quality video labs for use in the AirActions middle and high school program. Her film background brings a unique perspective to project ideas and organization.

Education

BA, Environmental Science & Film, Colorado College

Resume

Glory Dolphin Hammes, CIE, CAFS

SUMMARY OF QUALIFICATIONS

- Strong background in Indoor Air Quality (IAQ) with special emphasis on custom air filtration design
- Licensed C-20 HVAC Contractor (under IQAir Clean Air Team Corporation)
- Writer and contributor to several industry publications
- Advisor to the EPA on Indoor Air Quality Best Practices for Multi-Family Dwellings (2004)

EMPLOYMENT

Chief Executive Officer, IQAir North America, Inc.

Since August 2004

Complete P & L responsibility

Responsible for developing and overseeing all training programs

Project Management

Design & Implement Employee Benefit Package

EDUCATION

B.Sc. Degree, May 1996

UNIVERSITY OF SOUTHERN CALIFORNIA (USC)

Los Angeles, California

Business Administration, Emphasis: Entrepreneurship

Associated Arts Degree, December 1993

SANTA MONICA COLLEGE (SMC)

Santa Monica, California

CERTIFICATIONS

Certified Indoor Environmentalist (CIE), 1998

Registered Environmental Assessor (REA), 1998

Certified Air Filtration Specialist (CAFS), 2000

PROFESSIONAL MEMBERSHIPS

American Lung Association, Exclusive Air Cleaning Partner (since 2004)

Indoor Air Quality Association (IAQA)

National Association of Female Executives (NAFE)

REPRESENTATIVE PROJECT EXPERIENCE

AQMD Pilot Study

U.S. Olympic Team Air Purification Equipment Provider – Beijing 2008

Extreme Makeover: Home Edition Project Coordinator

Brentwood Union School District

Harvard-Westlake School

NANCY A. DINELLA

949 300 3433 | nancydinella@aol.com
www.linkedin.com/in/nancydinella | Dana Point, CA

Performance optimization leader with extensive sales/marketing and management experience. Diverse background in developing, directing and implementing strategic sales objectives that exceed sales/profitability by driving results and leading effective sales, marketing and business teams toward a common goal.

- **Accomplished Sales Leader** with more than 25 years of experience. Diverse background with Fortune 250 global organizations.
- **Skilled change agent** who offers distinct advantages in managing teams and driving new business.
- **Outstanding communication skills;** engages and connects with diverse people at all levels of the organization. Trusted advisor to senior executives with ability to translate business goals into winning strategies.
- **Proven track-record** of excellent public engagement and community outreach skills.

- | | | |
|------------------------------------|-------------------------------|--------------------------|
| • Sales & marketing management | • People management | • Sales training |
| • Strategic planning & execution | • New business development | • Leadership and support |
| • Driving collaboration & teamwork | • Contract development | • Skilled change agent |
| • Executive relationship building | • Integrated solution selling | • Organizational skills |

Career Achievements

IQAir North America

Los Angeles, CA | 2017 - present

Director Community Outreach -IQAir Foundation

Directing efforts with respect to government and local funding for Clean Air in Schools Program through negotiations with regulation control districts nationwide, community groups, private funding sources and environmental justice educators. Focus on assisting with immediate mitigation efforts and funding assistance for communities with socioeconomically disadvantaged conditions for schools, homes, and housing for comprehensive multi-year air filtration installation projects. As Director of Community Engagement, provided critical support for community engagement and communications initiatives with a special focus on environmental justice by helping improve environmental health conditions in neighborhoods overburdened by pollution because of economic, historic land-use, or ethnic/racial factors. Collaboration with stakeholders within air districts, communities, parents and stakeholders. Specific goals achieved:

- 1) Responsible for business expansion in revenue for over \$15M of local and state funding opportunities.
- 2) Expanding brand recognition to state organizations through public engagements.
- 3) Communicating strategically to a broad range of stakeholders on key pollution-control efforts and initiatives
- 4) Work collaboratively across the organization, reporting to the CEO.

Commercial Business Development Manager

Overseeing territory and management of all focus market areas: Hospitality, Pharmaceutical Labs, Chemical Processing, Infection Control, Cleanrooms, Print Processing, and workplace environments concerned with employee health and safety, EPA, OSHA and WELL standards.

- Contracted new distributor partner demonstrating sales touch points into new business models such as senior living housing, corporate hospitality, medical facilities and MBE, MWE and SBA's diverse program implementation. Spearheaded company's participation in GSA contract model process.

MSC Industrial Supply

Melville, NY | 2007 - 2017

Commercial National Accounts Team Manager (2015–2017)

- **Managed** \$350M territory; Exceeded sales and margin quota by 120%
- **Led a team of 10 associates to develop strategic sales strategies to increase revenue and profitability** through business development, solution selling, sales training and margin enhancement.
- **Coached team to build executive relationships** to introduce a solution offering that allows for gains in sales and profitability.

Market National Accounts Market Team Manager (2013-2015)

- **Managed \$450M territory; exceeded quota:** 2013 - 103%, 2015 - 104%
- Responsible for the management of 12 associates; together developed selling techniques and strategies by implementing customized programs to drive trusted advisor status within customer base.
- Developed strategic and leadership plans, forecasting and objective setting to exceed sales goals.

Senior National Account Manager (2007-2013)

- **Managed \$40M territory-** Exceeded sales quota by 15% each year, consecutively.
- **Responsible for sales/profit strategy for Fortune 500 companies via indirect management responsibility by coaching and mentoring the local sales teams** to develop and implement account strategies to increase profitability and top-line sales within my portfolio.

ITW (Illinois Tool Works) Thermal Films Division

Romeo, MI | 2005 - 2007

Business Development Manager

- Developed and implemented customer specific business plans and marketing collateral material to increase brand awareness and entry into vertical markets.
- Grew existing territory by developing a one-stop program whereby sales were increased by 20% in 2006, and 13% ahead of schedule for 2007 within a competitive commodity market environment.

Autospecialty Division of (UAI)

Carson, CA | Alsip, IL | 2001 - 2005

Western Regional Sales Director

- Supervised 12 manufacturers' sales representatives and 2 direct staff. **Doubled regional sales volume by 200%** of quota. President's Club; annually surpassing company's sales quota. Proactive in addressing price compression issues with existing customers by developing business plans which improved profitability.

Honeywell Friction Materials, Bendix

Troy, MI | 2000 - 2001

Vice President Marketing, Americas

- Responsible for 17 direct reports. **Led North America marketing efforts** including product, pricing, advertising, promotions and brand positioning, as well as developing overall strategies for the business unit. Further responsibilities included margin and profitability, direction of media planning, trade advertising, catalog database management, focus groups, new product launches and pricing strategies.
- **Successful transition and restructure of the Marketing organization** including comprehensive process mapping, recruitment, and the redefining of responsibilities and training programs for staff of 17.
- Developed and implemented new programs/strategy for North America, evaluated current business model, competitive benchmarking, customer research and market trends. The net results of addressing the decline of this product category generated \$2M of incremental sales revenue.
- Identified and orchestrated all new marketing business opportunities with existing and potential suppliers. **Led efforts in licensing opportunities which yielded cost savings of \$8-10M.**

Visteon Automotive Systems/ Ford Motor Company

Dearborn, MI | 1999 - 2000

Global Sales and Marketing Account Manager

Responsible for \$700M in sales volume for Ford Motor Company's Heat Exchanger Technology.

Achievements

Sales Performance Presidents Club: 5 consecutive years, development MSC Mexico Penetration Strategy, Facilitator of MSC Diversity Program Task Force, Task Force member of MSC Cost Savings Documentation Task Force, development of strategy for Automotive Vertical Market.

Professional Training

Challenger Sales Training (2017), SAMA Leadership Training (2016), MSC Leadership Training (2016), Karass Negotiation Training, AWDA Committee Member, Global Symposium speaker Sales Presentations- Cooper Automotive, Achieving Win/Win Outcomes/Ford Training Center, Negotiating Skills, Ford Fairlane Center, Karass: Win/Win Negotiation Training, Representative to the AIM Council, Awarded Supplier of the Year for Outstanding Customer Service from Tier I OEM Supplier/ZF.

Education/Associations

- William Paterson College, Wayne, NJ -BA
- County College of Morris: Marketing
- National Organization of Professional Women
- Member of the Strategic Account Management Association

APPENDIX D

LETTERS OF SUPPORT AND COMMITMENT

FROM PROJECT PARTNERS



Attn: Jennifer A. Lentz, Ph.D.
Deputy Director of Programs
Coalition for Clean Air
660 S. Figueroa St., Suite #1140
Los Angeles, CA 90017

March 16, 2022

Re: The EPA's Enhanced Air Quality Monitoring for Communities "AirAware - YMCA" Grant Application

Dear Dr. Lentz:

On behalf of TD Environmental Services, I am pleased to provide this letter of commitment and support for the Coalition for Clean Air (CCA)'s application for a three-year grant from the US. Environmental Protection Agency designed to improve air quality monitoring in disadvantaged communities.

TD Environmental Services, LLC specializes in collecting and analyzing data using new technologies to provide insights into the air we breathe. Our services span developing air sensor networks, managing data, performing in-depth analytics, working with communities, and giving clear insights.

If funded, this pilot project will focus on outdoor and indoor air quality monitoring and, where feasible improved indoor air filtration systems at select YMCAs in the Greater Los Angeles area. "AirAware" will couple an education and awareness program to increase visitors' and staff understanding of air quality and how they can respond to it, protecting themselves and their community. This project will work to address disproportionate health outcomes from air pollution in YMCA communities near ports, major roadways, and industrial areas through these measures. The AirAware project will also allow scale and grow air quality monitoring at YMCAs throughout California and across the country.

TD Environmental Staff will work with the project partners to create education and awareness programs for YMCA staff, visitors, and other interested community members. These educational components will provide individuals with actionable information, helping them understand the basics of air quality, reduce their exposure to air pollution, and advocate for and change their neighborhood's air quality. Youth programming will be the primary focus of this educational work. The team will work closely with the YMCA's youth program coordinators to integrate air quality education into sites' education infrastructure. Ultimately, our AirAware program will empower YMCA communities to take an active role in understanding and reducing their daily exposure to air pollution.

Please accept this letter and the signature below as the TD Environmental Services' commitment to this proposal. If you have any questions, please do not hesitate to contact me at Tim@tdenviro.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tim Dye'.

Tim Dye, Founder
TD Environmental Services

TDEnviro.com

245 Kentucky St., Suite A • Petaluma, CA 94952 • 707-310-5541 (m) • Tim@TDEnviro.com



Empowering the world to breathe cleaner air through
information, collaboration and technology solutions

March 22, 2022

Attn: Jennifer A. Lentz, Ph.D.
Deputy Director of Programs
Coalition for Clean Air
660 S. Figueroa St., Suite #1140
Los Angeles, CA 90017

Re: The EPA's Enhanced Air Quality Monitoring for Communities "AirAware – YMCA" Grant Application

Dear Dr. Lentz:

On behalf of the *IQAir Foundation*, it is my pleasure to provide this letter of commitment and support for the *Coalition for Clean Air (CCA)*'s application for a three-year grant from the *US. Environmental Protection Agency* designed to improve air quality monitoring in disadvantaged communities.

If funded, this pilot project will focus on outdoor and indoor air quality monitoring, and where feasible improved indoor air filtration systems, at select *YMCAs* in the Greater Los Angeles area. "AirAware" will couple an education and awareness program to increase visitor and staff understanding of what air quality is and how they can respond to it, protecting both themselves and their community. This project will work to address disproportionate health outcomes from air pollution in *YMCA* communities near ports, major roadways, and industrial areas through these measures. The AirAware project will also provide an opportunity to scale and grow air quality monitoring at *YMCAs* throughout California and across the country.

The *IQAir Foundation* is a 501(c)(3) non-profit organization that supports disadvantaged and underserved communities, which are disproportionately affected by adverse environmental conditions. Busy freeway or highway interchanges or a bustling industrial district affect their surrounding communities. These areas and communities, often suffer with higher rates of asthma and other resulting respiratory illnesses, with children in these vulnerable communities suffer higher rates of related illnesses as a result of this environmental inequality.

Our organization seeks to promote environmental justice by helping to improve access to air quality data, environmental literacy, and providing technology solutions to those unfairly affected by pollution as a result of socio-economic or racial factors. We step in when communities are unfairly affected by air pollution and environmental toxins, working in collaboration with environmental justice and community-based groups.

Please accept this letter and the signature below as the *IQAir Foundation's* commitment to this proposal. If you have any questions, please do not hesitate to contact me at Nancy.Dinella@iqairfoundation.org.

Sincerely,

Nancy Dinella
Community Outreach Director
IQAir Foundation



March 16, 2022

Attn: Jennifer A. Lentz, Ph.D.
Deputy Director of Programs
Coalition for Clean Air
660 S. Figueroa St., Suite #1140
Los Angeles, CA 90017

Re: The EPA's Enhanced Air Quality Monitoring for Communities "AirAware – YMCA" Grant Application

Dear Dr. Lentz:

On behalf of the *YMCA of West San Gabriel Valley (WSGV)*, it is my pleasure to provide this letter of commitment and support for the *Coalition for Clean Air (CCA)*'s application for a three-year grant from the *US Environmental Protection Agency* designed to improve air quality monitoring in disadvantaged communities. At the nexus of youth, community, and neighborhoods impacted by air pollution sit local YMCAs. With over 2,500 nationwide locations that serve more than 10,000 communities, YMCAs serve as a vital community hub for many families and individuals in the United States. For this reason, we would very much like to include YMCAs, and specifically our location, as our community-based partners on this grant.

The YMCA of WSGV has served the cities of Alhambra, Monterey Park, Rosemead, and San Gabriel for over 100 years, and is known for bringing a sense of belonging to the community. We work to promote strong basic values and feelings of high self-worth that are critical to people of all ages and are committed to programs that build healthy kids, healthy families, and healthy communities.

If funded, this pilot project will focus on outdoor and indoor air quality monitoring, and where feasible improved indoor air filtration systems, at our YMCA location in Alhambra, CA. The "AirAware" program will couple an education and awareness program to increase visitor and staff understanding of what air quality is and how they can respond to it, protecting both themselves and their community. This project will work to address disproportionate health outcomes from air pollution in YMCA communities near ports, major roadways, and industrial areas through these measures. The AirAware project will also provide an opportunity to scale and grow air quality monitoring at YMCAs throughout California and across the country.

Please accept this letter and the signature below as the *YMCA of West San Gabriel Valley*'s commitment to this proposal. If you have any questions, please do not hesitate to contact me at val.ymca@gmail.com.

Sincerely,

Valarie Gomez, CEO
YMCA West San Gabriel Valley
401 Corto St., Alhambra, CA 91801
<https://wsgvymca.org/>

YMCA of West San Gabriel Valley • 401 East Corto Street • Alhambra, California 91801
(626) 576-0226 • www.wsgvymca.org

The Mission and Purpose of the West San Gabriel Valley YMCA is to put Christian principles into practice through programs that build a healthy spirit, mind and body for all.

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FOR YOUTH DEVELOPMENT*
FOR HEALTHY LIVING
FOR SOCIAL RESPONSIBILITY

March 23, 2022

Attn: Jennifer A. Lentz, Ph.D.
Deputy Director of Programs
Coalition for Clean Air
660 S. Figueroa St., Suite #1140
Los Angeles, CA 90017

Re: The EPA's Enhanced Air Quality Monitoring for Communities "AirAware – YMCA" Grant Application

Dear Dr. Lentz:

On behalf of the YMCA of Pomona Valley's Diamond Bar/Walnut location, it is my pleasure to provide this letter of commitment and support for the Coalition for Clean Air (CCA)'s application for a three-year grant from the US. Environmental Protection Agency designed to improve air quality monitoring in disadvantaged communities.

The YMCA of Pomona Valley works with our neighbors to ensure everyone, regardless of age, income or background has the opportunity to learn, grow and thrive. We are part of the association of the YMCA of Orange County, which works to strengthen communities through programs committed to youth development, healthy living, and social responsibility throughout Orange County, East San Gabriel Valley, Pomona Valley, and Riverside County. With five Health & Wellness Centers, three program centers, 80+ Before & Afterschool Program locations, two special needs programs, and numerous community resources, the Y connects people to their potential, purpose, and to each other. Donations, grants, and legacy gifts ensure Y programs are open to all regardless of an individual's or family's financial circumstances. One hundred percent of donations received support our financial assistance program or subsidized Y programs for those most in need.

If funded, this pilot project will focus on outdoor and indoor air quality monitoring, and where feasible improved indoor air filtration systems, at our YMCA location in Diamond Bar, California. The "AirAware" program will couple an education and awareness program to increase visitor and staff understanding of what air quality is and how they can respond to it, protecting both themselves and their community. This project will work to address disproportionate health outcomes from air pollution in YMCA communities near ports, major roadways, and industrial areas through these measures. The AirAware project will also provide an opportunity to scale and grow air quality monitoring at YMCAs throughout California and across the country.

Please accept this letter and the signature below as the YMCA of Pomona Valley's Diamond Bar/Walnut location's commitment to this proposal. If you have any questions, please do not hesitate to contact me at mquintero@ymcaoc.org

Sincerely,

Miguel Quintero, Procurement & Contracts Administrator

YMCA of Pomona Valley, Diamond Bar
22600 Sunset Crossing Rd., Diamond Bar, CA 91765
<https://ymcaoc.org/ymca-pomona-valley/>

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FOR YOUTH DEVELOPMENT
FOR HEALTHY LIVING
FOR SOCIAL RESPONSIBILITY

March 25, 2022

Attn: Jennifer A. Lentz, Ph.D.
Deputy Director of Programs
Coalition for Clean Air
660 S. Figueroa St., Suite #1140
Los Angeles, CA 90017

Re: The EPA's Enhanced Air Quality Monitoring for Communities "AirAware – YMCA" Grant
Application
Dear Dr. Lentz:

On behalf of the YMCA of Metropolitan Los Angeles' Montebello-Commerce location, it is my pleasure to provide this letter of commitment and support for the Coalition for Clean Air (CCA)'s application for a three-year grant from the US. Environmental Protection Agency designed to improve air quality monitoring in disadvantaged communities.

The YMCA of Metropolitan Los Angeles' Montebello-Commerce location, was rated amongst the 2021 "Greatest Nonprofits" for supporting programs that build healthy spirit, mind and body for all. Our organization works to strengthen our communities through youth development, healthy living and social responsibility. We serve over 5,000 families throughout the San Gabriel Valley and Los Angeles County every year. Our programs range from preschool to water safety, summer camp and teen leadership development, diverse abilities programs to teen leadership- model government programs. Additionally, since the beginning of the pandemic, the YMCA has provided over a half a million free meals to food insecure families along with free diapers and baby formula, free flu shots and COVID-19 vaccinations, and free drive-through activity kids to families each Spring along with free Christmas toy give aways in December.

If funded, this pilot project will focus on outdoor and indoor air quality monitoring, and where feasible improved indoor air filtration systems, at our YMCA location in Montebello, CA. The "AirAware" program will couple an education and awareness program to increase visitor and staff understanding of what air quality is and how they can respond to it, protecting both themselves and their community. This project will work to address disproportionate health outcomes from air pollution in YMCA communities near ports, major roadways, and industrial areas through these measures. The AirAware project will also provide an opportunity to scale and grow air quality monitoring at YMCAs throughout California and across the country.

Please accept this letter and the signature below as the YMCA of Metropolitan Los Angeles' Montebello-Commerce location's commitment to this proposal. If you have any questions, please do not hesitate to contact me at PaulParzik@ymcala.org.

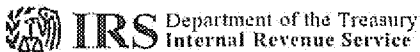
Best Regards,

Paul Parzik

Executive Director

APPENDIX E

PROOF OF NONPROFIT STATUS



Department of the Treasury
Internal Revenue Service
P.O. Box 2508
Cincinnati OH 45201

In reply refer to: 0248467579
Sep. 19, 2012 LTR 4168C E0
23-7120567 000000 00
00020577
BODC: TE

COALITION FOR CLEAN AIR
800 WILSHIRE BLVD STE 1010
LOS ANGELES CA 90017



009859

Employer Identification Number: 23-7120567
Person to Contact: Mr Gerding
Toll Free Telephone Number: 1-877-829-5500

Dear Taxpayer:

This is in response to your Sep. 10, 2012, request for information regarding your tax-exempt status.

Our records indicate that you were recognized as exempt under section 501(c)(3) of the Internal Revenue Code in a determination letter issued in July 1971.

Our records also indicate that you are not a private foundation within the meaning of section 509(a) of the Code because you are described in section 509(a)(2).

Donors may deduct contributions to you as provided in section 170 of the Code. Bequests, legacies, devises, transfers, or gifts to you or for your use are deductible for Federal estate and gift tax purposes if they meet the applicable provisions of sections 2055, 2106, and 2522 of the Code.

Please refer to our website www.irs.gov/eo for information regarding filing requirements. Specifically, section 6033(j) of the Code provides that failure to file an annual information return for three consecutive years results in revocation of tax-exempt status as of the filing due date of the third return for organizations required to file. We will publish a list of organizations whose tax-exempt status was revoked under section 6033(j) of the Code on our website beginning in early 2011.



IRS Department of the Treasury
Internal Revenue Service

P.O. Box 2508
Cincinnati OH 45201

009859.246505.0043.001 1 AT 0.374 532



COALITION FOR CLEAN AIR
800 WILSHIRE BLVD STE 1010
LOS ANGELES CA 90017



009859

CUT OUT AND RETURN THE VOUCHER AT THE BOTTOM OF THIS PAGE IF YOU ARE MAKING A PAYMENT,
EVEN IF YOU ALSO HAVE AN INQUIRY.

The IRS address must appear in the window.

0248467579

BODCD-TE

Use for payments

Letter Number: LTR4168C
Letter Date : 2012-09-19
Tax Period : 000000



237120567

INTERNAL REVENUE SERVICE
P.O. Box 2508
Cincinnati OH 45201
11111111111111111111

COALITION FOR CLEAN AIR
800 WILSHIRE BLVD STE 1010
LOS ANGELES CA 90017

237120567 DJ COAL 00 2 000000 670 000000000000

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APPENDIX F

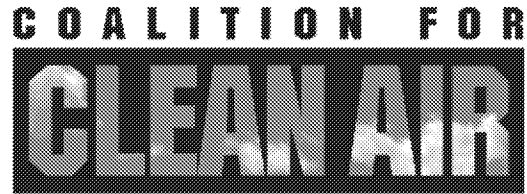
CCA'S BOARD OF DIRECTORS



Board of Directors

Board Member Name	Board Position
Tom Epstein	Board Chair
Sherry Jackman	Vice Chair
Estela De Llanos	Secretary
Beth Reid	Treasurer
Ed Begley, Jr.	Member
Todd Campbell	Member
Glory Dolphin Hammes	Member
Josh LaFarga	Member
Thomas Lawson	Member
Ronald Loveridge	Member
Bruce MacRae	Member
Bruce Melgar	Member
Erik Neandross	Member
Laura Renger	Member
Alex Spataru	Member
Tom Swenson	Member
Christy Ubellacker	Member

Last updated March 23, 2022



Memorandum

To: CCA Board of Directors
From: Joe Lyou
Date: March 13, 2022
Re: Resolution re: IQAir and Board Member Glory Dolphin-Hammes

I have attached a proposed resolution acknowledging two potential cooperative partnership projects involving IQAir, the employer of CCA Board Member Glory Dolphin-Hammes, the IQAir Foundation, and CCA.

RESOLUTION OF BOARD OF DIRECTORS
OF
COALITION FOR CLEAN AIR

WHEREAS, members of the Board of Directors of the Coalition for Clean Air (“CCA”) serve in a volunteer capacity; and

WHEREAS, CCA Board Member Glory Dophin-Hammes works for IQAir, an air quality filtration system and air quality monitoring device manufacturing, installation, and retail company; and

WHEREAS, IQAir has created the IQAir Foundation, a non-profit organization that supports charitable activities that include but may not be limited to air quality monitoring and air filtration; and

WHEREAS, CCA pursues funding opportunities to advance its mission through projects that involve air quality monitoring and reducing exposure to air pollutants; and

WHEREAS, CCA, IQAir, and the IQAir Foundation have or will be submitting two funding proposals for projects that involve grants from the U.S. Environmental Protection Agency to conduct air quality monitoring and filtration; and

WHEREAS, the CCA Articles of Incorporation, as amended, state, in part, “The purposes of this corporation do not include pecuniary gain or profit to the members thereof: consequentially none of its net earnings shall ever inure to the benefit of any private member or individual; provided, however, that this provision shall not be so construed as to prevent the payment to directors or other members of reasonable compensation for services actually rendered to this corporation;” and

WHEREAS, the CCA Bylaws, as amended, state, in part, “This corporation’s assets are irrevocably dedicated to purposes meeting the requirements for exemption provided in Section 501(c)(3) of the Code, and no part of the net income or assets of this corporation shall ever inure to the benefit of, or be distributed to any of its directors, officers or any private individuals, except that the corporation shall be authorized and empowered to pay reasonable compensation for services rendered and to make payments and distributions in furtherance of its purposes as set forth in the purposes clause of its Articles from time to time;” and

WHEREAS, CCA wishes to maintain maximum transparency about all matters that may be seen as creating a potential conflict of interest or providing unwarranted compensation to any board or staff member; and

WHEREAS, the practice at CCA is to make the Board of Directors aware of any action that may be interpreted, even mistakenly, as inappropriate or detrimental to the interests of the organization.

NOW, THEREFORE, BE IT RESOLVED, THAT, the Board of Directors finds that the CCA partnerships with IQAir and the IQAir Foundation and the compensation received create no unique or unusual benefits to any party; and

BE IT FUTHER RESOLVED, THAT, the Board of Directors finds that CCA's work with IQAir and the IQAir Foundation benefits CCA's programmatic and economic interests, and supports its mission to protect public health, improve air quality, and prevent climate change by helping monitor air quality and reduce exposure to air pollution; and

BE IT FUTHER RESOLVED, THAT, the Board of Directors finds that the CCA and IQAir/IQAir Foundation projects are in the interest of CCA and that any financial benefit that may accrue to IQAir, the IQAir Foundation, or Board Member Glory Dolphin-Hammes as a result of CCA's work under these projects would be reasonable compensation for the service (e.g., payments to CCA) rendered, and allowable and consistent with CCA's Articles of Incorporation and Bylaws.

APPROVED

Dated: March 25, 2022



Estela de Llanos, Secretary, Board of Directors